

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF VIRGINIA  
ALEXANDRIA DIVISION

UNITED STATES, *et al.*,

*Plaintiffs,*

v.

GOOGLE LLC,

*Defendant.*

Civil Action No. 1:23-CV-00108-  
LMB-JFA

**OBJECTIONS OF NON-PARTY YAHOO AD TECH LLC TO THE USE OF YAHOO  
CONFIDENTIAL INFORMATION AT TRIAL**

Pursuant to the Court’s pretrial scheduling order in this action dated June 24, 2024 (Dkt. 871), Non-party Yahoo Ad Tech LLC (“Yahoo”) hereby objects to the use of its confidential documents and data (“Yahoo Confidential Information”) produced in this action in response to (1) the Subpoena to Produce Documents, Information, or Objects or to Permit Inspection of Premises in a Civil Action issued by Plaintiff United States of America and received by Yahoo in this action on April 25, 2023; and (2) the Subpoena to Produce Documents, Information, or Objects or to Permit Inspection of Premises in a Civil Action issued by Google LLC and received by Yahoo in this action on April 25, 2023 (collectively, the “document subpoenas”).

Yahoo is not a party to the above-captioned litigation.

In compliance with Rule 45(d)(2)(B) of the Federal Rules of Civil Procedure, non-party Yahoo served responses and objections to the document subpoenas to both parties on May 9, 2023, subsequently met and conferred with both parties, and produced a number of documents

and data responsive to the document subpoenas. Such productions were designated “Highly Confidential” under the Court’s Modified Protective Order dated May 11, 2023 (Dkt. 203), as it would cause Yahoo material and significant competitive or commercial harm if the Yahoo Confidential Information contained therein were disclosed publicly or to Yahoo’s competitors.

The specific Yahoo Confidential Information at issue is proprietary, confidential, and competitively sensitive business, commercial, and trade secret information, the disclosure of which to Yahoo’s competitors would cause Yahoo immediate and material competitive or commercial harm. For example, the Yahoo Confidential Information includes granular, nonpublic, competitively sensitive metrics from Yahoo’s confidential data productions regarding ad impressions, revenues, pricing and fees, and take rates. And it includes business documents containing Yahoo’s confidential business capabilities, business strategies, and competitive analysis.

Yahoo is a privately-held company and not a party to this action, and its business and financial dealings and documents are not a matter of public record. Disclosure of Yahoo Confidential Information to Yahoo’s competitors would cause Yahoo significant and material competitive harm. Yahoo worked cooperatively with both parties to this action in the interest of judicial efficiency and produced the Yahoo Confidential Information under a designation of “Highly Confidential” with the absolute expectation that its materials would remain confidential. In order to defend that expectation of confidentiality, Yahoo submits these objections to the use of specific Yahoo Confidential Information at trial. Per the Court’s instructions in the pretrial scheduling order (Dkt. 871), these objections are accompanied by Yahoo’s proposed acceptable redactions of the Yahoo Confidential Information (attached hereto as Exhibits 1-5).

**OBJECTIONS TO THE USE OF SPECIFIC YAHOO CONFIDENTIAL INFORMATION AT TRIAL BY PLAINTIFF UNITED STATES OF AMERICA**

Non-party Yahoo incorporates its objections above. Yahoo hereby further objects to the use of the following Yahoo Confidential Information proposed for use at trial by Plaintiff United States of America in Exhibit A of its amended trial exhibit list (Dkt. 923):

1. **PTX1692 (YAH\_GG\_LIT\_004590 – YAH\_GG\_LIT\_004595):** Yahoo objects to the use of specific Yahoo Confidential Information within this document because such Yahoo Confidential Information is proprietary, confidential, and/or competitively sensitive business, commercial, or trade secret information, the disclosure of which to Yahoo's competitors would cause Yahoo immediate and material competitive or commercial harm. Specifically, it includes confidential information about Yahoo's recent changes to its ad tech business, including business strategy, sales strategy, operations, third-party partnerships, and the impact of the changes on Yahoo's employee base. Yahoo's proposed redactions to the specific Yahoo Confidential Information in this document is attached hereto as Exhibit 1.
2. **PTX1619 (VZGGL-CID-00000001 – VZGGL-CID-00000062):** Yahoo objects to the use of specific Yahoo Confidential Information within this document because such Yahoo Confidential Information is proprietary, confidential, and/or competitively sensitive business, commercial, or trade secret information, the disclosure of which to Yahoo's competitors would cause Yahoo immediate and material competitive or commercial harm. Specifically, it includes confidential information about Yahoo's online services and ad tech businesses, including business strategy, business plans, competitive analysis, operations, costs, revenue,

revenue share, and contractual terms with third-party partners. Yahoo further objects to the use of the confidential information described above at trial because some of it relates to Tumblr, which was previously owned by Yahoo, but has since been sold to non-party Automattic Inc. Yahoo's proposed redactions to the specific Yahoo Confidential Information and Tumblr confidential information in this document is attached hereto as Exhibit 2.

3. **PTX1627 (VZGGL-CID-00001216 – VZGGL-CID-00001276):** Yahoo objects to the use of specific Yahoo Confidential Information within this document because such Yahoo Confidential Information is proprietary, confidential, and/or competitively sensitive business, commercial, or trade secret information, the disclosure of which to Yahoo's competitors would cause Yahoo immediate and material competitive or commercial harm. Specifically, it includes confidential information about the Yahoo DSP, including business strategy, business partnerships, competitive analysis, investments, research, operations, costs, tools, revenue, fees, and discounts. Yahoo's proposed redactions to the specific Yahoo Confidential Information in this document is attached hereto as Exhibit 3.

4. **Charts, Figures, or Tables Prepared by Plaintiff's Experts**

**(YAH\_GG\_LIT\_005626; YAH\_GG\_LIT\_005627; YAH\_GG\_LIT\_005629; YAH\_GG\_LIT\_005630 – YAH\_GG\_LIT\_005635; PTX1200; PTX1233; PTX1236 – PTX1240; PTX1255; PTX1260 – PTX1266; PTX1277 – PTX1278; PTX1280; PTX1292 – PTX1295; PTX1300 – PTX1301; PTX1306 – PTX1307; PTX1309; PTX1314; PTX1388 – PTX1389; PTX1432; PTX1434 – PTX1435; PTX1478):** Plaintiff United States of America provided Yahoo with

redacted courtesy copies of its proposed trial exhibits that contain charts, figures, or tables prepared by Plaintiff's experts using Yahoo Confidential Information. Yahoo objects to the use of specific Yahoo Confidential Information within this data in Plaintiff's trial exhibits because it contains granular, non-public, competitively sensitive internal metrics—including information about revenues, revenue share, fees, impressions, spend, and take rates. This data is among the most competitively sensitive types of information that an entity possesses, and its disclosure to Yahoo's competitors would cause Yahoo immediate and material competitive or commercial harm. Yahoo further objects to the use of the specific Yahoo Confidential Information within this data because such information is proprietary, confidential, and/or competitively sensitive business, commercial, or trade secret information. Yahoo proposes that its name be redacted from the legend of each chart, figure, or table in Plaintiff's trial exhibits cited above.

**OBJECTIONS TO THE USE OF SPECIFIC YAHOO CONFIDENTIAL INFORMATION AT TRIAL BY DEFENDANT GOOGLE LLC**

Non-party Yahoo incorporates its objections above. Yahoo hereby further objects to the use of the following Yahoo Confidential Information proposed for use at trial by Defendant Google LLC in Exhibit A of its trial exhibit list (Dkt. 894):

1. **DTX947 (VZGGL-CID-00000305 – VZGGL-CID-00000365):** Yahoo objects to the use of specific Yahoo Confidential Information within this document because such Yahoo Confidential Information is proprietary, confidential, and/or competitively sensitive business, commercial, or trade secret information, the disclosure of which to Yahoo's competitors would cause Yahoo immediate and material competitive or commercial harm. Specifically, it includes confidential

information about the Yahoo DSP, including business strategy, sales strategy, product roadmaps, competitive analysis, operations, tools (e.g., Omniscope, which is only accessible with agreement to Yahoo's confidentiality terms), performance metrics (e.g., conversions, CPM, CPC, clicks, etc.), platform reach, costs, and fees. Yahoo's proposed redactions to the specific Yahoo Confidential Information in this document is attached hereto as Exhibit 4.

2. **DTX1537 (YAH\_GG\_LIT\_003737 – YAH\_GG\_LIT\_003887):** Yahoo objects to the use of this entire data file at trial because it contains specific Yahoo Confidential Information regarding monthly revenue and impressions for Yahoo's ad tech platforms, broken out by ad format and other criteria. Such Yahoo Confidential Information is proprietary, confidential, and/or competitively sensitive business and commercial information, the disclosure of which to Yahoo's competitors would cause Yahoo immediate and material competitive or commercial harm.
3. **DTX1820 (YAH\_GG\_LIT\_000020 – YAH\_GG\_LIT\_000043):** Yahoo objects to the use of specific Yahoo Confidential Information within this document because such Yahoo Confidential Information is proprietary, confidential, and/or competitively sensitive business, commercial, or trade secret information, the disclosure of which to Yahoo's competitors would cause Yahoo immediate and material competitive or commercial harm. Specifically, it includes confidential information about the Yahoo DSP, including performance metrics, fees, third-party partners, tools (e.g., Omniscope, which is only accessible with agreement to Yahoo's confidentiality terms), and product roadmaps. Yahoo's proposed

redactions to the specific Yahoo Confidential Information in this document is attached hereto as Exhibit 5.

4. **DTX2245 (YAH\_GG\_LIT\_003888 – YAH\_GG\_LIT\_003888):** Yahoo objects to the use of this entire data file at trial because it contains specific Yahoo Confidential Information regarding Yahoo's financials for its ad tech business, including revenue and traffic acquisition costs (TAC), broken out by business segment and other criteria. Such Yahoo Confidential Information is proprietary, confidential, and/or competitively sensitive business and commercial information, the disclosure of which to Yahoo's competitors would cause Yahoo immediate and material competitive or commercial harm.
5. **DTX2246 (YAH\_GG\_LIT\_005631 – YAH\_GG\_LIT\_005634):** Yahoo objects to the use of this entire data file at trial because it contains specific Yahoo Confidential Information regarding Yahoo's DSP, including granular details about revenue, impressions, inventory cost, deal type, and other metrics. Such Yahoo Confidential Information is proprietary, confidential, and/or competitively sensitive business and commercial information, the disclosure of which to Yahoo's competitors would cause Yahoo immediate and material competitive or commercial harm.
6. **Charts, Figures, or Tables Prepared by Google's Experts (DTX 1839; DTX 1862; DTX 1891; DTX 1892; DTX 1893; DTX 1943; DTX 1948; DTX 1949; DTX 1950; DTX 1955; DTX 1956; DTX 1988; DTX 1989; DTX 1991; DTX 2049; DTX 2050; DTX 2052; DTX 2062; DTX 2063; DTX 2064; DTX 2071):** Google provided Yahoo with redacted courtesy copies of Google's proposed trial

exhibits that contain charts, figures, or tables prepared by Google's experts using Yahoo Confidential Information. Yahoo objects to the use of specific Yahoo Confidential Information within these charts, figures, and tables because they contain granular, non-public, competitively sensitive internal metrics—including information about revenues, revenue share, market shares, fees, and spend and spending shares. This data is among the most competitively sensitive types of information that an entity possesses, and its disclosure to Yahoo's competitors would cause Yahoo immediate and material competitive or commercial harm. Yahoo further objects to the use of the specific Yahoo Confidential Information within this data because such information is proprietary, confidential, and/or competitively sensitive business, commercial, or trade secret information. Yahoo agrees with Google's proposed redactions to the specific Yahoo Confidential Information in this data.

Dated: July 26, 2024

Respectfully submitted,

*/s/ Robert G. Kidwell*  
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*Counsel for Non-party  
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## CERTIFICATE OF SERVICE

I am a citizen of the United States and employed by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. I am over the age of 18 and not a party to the present action. My business address is: 555 12th Street N.W., Washington, D.C. 20004. I hereby certify that on the 26th day of July, 2024, I filed **OBJECTIONS OF NON-PARTY YAHOO AD TECH LLC TO THE USE OF YAHOO CONFIDENTIAL INFORMATION AT TRIAL** with the Clerk of Court using this Court's CM/ECF system and served all counsel of record with the document and a notification of such filing (NEF) via this Court's CM/ECF system. I will also send the document and a notification of such filing to the following parties via email:

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# **Exhibit 1**

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# Advertising Transformation FAQs

*Last updated June 26, 2023*

## Our Ads strategy

### What is happening?

Over the course of 2023, we will continue to transform the Yahoo Advertising business, both strategically and organizationally, to set it up for long-term success.

### Why is it happening?

Going back many years, and following the acquisition of more than 30 ad tech companies between Yahoo and AOL combined, the strategy of our ads business has been to attempt to compete in the ad tech industry by offering both omnichannel media buying and a "unified stack," or a one-stop shop across our DSP, SSP, and Native (Gemini) platforms. This approach resulted in some big wins like our world-class DSP, but it was also incredibly resource-intensive and lacked focus as it required us to build and maintain products across the full stack while servicing the needs of a wide spectrum of customers on a global basis. Despite many years of effort and financial commitments, Y4B ad tech was far from profitable and struggled to live up to our high standards in every arena in which it played.



### What does our new strategy include?

As part of our deepened focus on the Yahoo DSP, we will:

- Modernize our ad tech stack by activating supply directly through our DSP, while sunsetting our existing Supply-Side Platform (SSP). Because we have strong existing partnerships across everything from advanced TV to retail media networks, as well as our own massive Yahoo O&O network, we have a unique opportunity to support our buy-side customers in a world-class manner through premium supply and access to truly unique data sets.

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- [REDACTED]
- Focus our world-class DSP technology on providing the most valuable features for these high-end customers: omni-channel advertising with the anchors of advanced TV, cross-channel measurement, and future-proof identity solutions like ConnectID.
- [REDACTED]
- Re-launch dedicated premium sales for Yahoo's major O&O properties, such as Yahoo Finance, Yahoo Sports, Yahoo News, and Yahoo Mail (with others to follow in the future as we expand and grow our consumer footprint).
- Sunset our Gemini native platform and complete a full transition to Taboola as our best-in-class partner for Native going forward, which will result in significant cost savings, increased revenue, and a better Yahoo consumer experience through more relevant ads.

**How will we measure the success of this new strategy?**

[REDACTED]

[REDACTED]

[REDACTED]

**Why is this new strategy better for our advertising business?**

[REDACTED]

• [REDACTED]

○ [REDACTED]

○ [REDACTED]

○ [REDACTED]

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**What are our owned-and-operated (O&O) businesses?**

Yahoo News, Entertainment, and Lifestyle; Yahoo Sports; Yahoo Finance; Yahoo Mail; Yahoo Search; AOL; AutoBlog; Engadget; and TechCrunch.

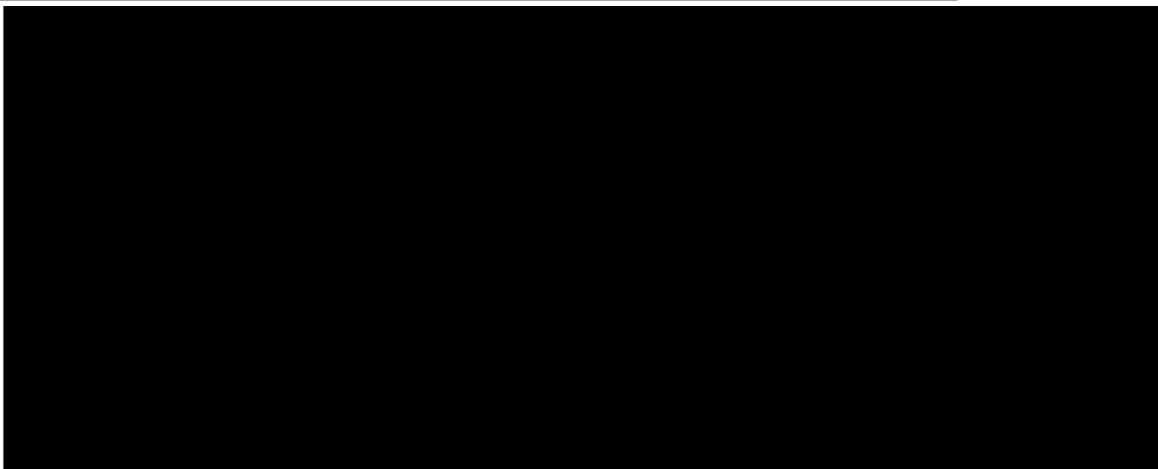
**Why is this new strategy better for our O&O businesses?**

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**Why are we focusing on the DSP?**

It's clear that our Demand-Side Platform (DSP) is where we have a path to win, today and in the future. We have a strong position in the market, high-growth potential and a valuable base of loyal clients. For the past several years, we've invested significantly in unifying our technologies and differentiating our product, and going forward we will double down on this valuable asset.

**Why are we exiting the SSP business?**



[REDACTED]

[REDACTED]

**Which markets are we exiting and why?**

[REDACTED]

**What does this mean for our customers?**

[REDACTED]

**When are we going to communicate these changes to advertisers, etc.? (Where can I find talking points, etc.?)**

[REDACTED]

**How can I learn more about our new Yahoo Advertising strategy?**

Throughout 2023 the Ads leadership team will keep teams and the broader Yahoo organization updated on the status of delivering on our new strategy. You can view Elizabeth Herbst-Brady's and Adam Roodman's recent Open House segments for an initial overview.

**What does this mean for Gemini?**

We will sunset Gemini following a transition period and leverage Taboola as our best-in-class partner for native.

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**How is this related to our relationship with Microsoft?**

[REDACTED]

[REDACTED]

**What does our cloud provider decision have to do with this announcement?**

[REDACTED]

**How does our partnership with Taboola fit into this?**

We signed a 30-year commercial agreement with Taboola for them to be the exclusive partner for our Native inventory. Signing this deal allows us to sunset the Gemini platform and complete a full transition to Taboola as the best-in-class partner for Native going forward. For additional information on our Taboola relationship and transition, [REDACTED]

**Our team**

**What does this mean for our team?**

[REDACTED]

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How are people being notified?

[REDACTED]

Are we eliminating roles because we over-hired?

[REDACTED]

Why are we still hiring for roles if we are eliminating roles?

[REDACTED]

What are we offering for severance?

[REDACTED]

Why are we eliminating some DSP engineers if we are focusing on the DSP?

[REDACTED]

What does this mean for contingent workers?

[REDACTED]

How will I learn more about what this means for my department/function?

[REDACTED]

Where can I go with additional questions?

Please reach out to your leader or [HRAnswers@yahooinc.com](mailto:HRAnswers@yahooinc.com)

## **Exhibit 2**

*Privileged and Confidential: Contains Business Secrets*

VERIZON MEDIA  
COMPETITION AND MARKETS AUTHORITY  
DIGITAL ADVERTISING MARKET STUDY  
RESPONSE TO REQUEST FOR INFORMATION DATED 1 AUGUST 2019

[Information highlighted in yellow is confidential, for the reasons set out in the attached confidentiality log.]

**Verizon Media's user and advertising services**

1. *Please list all the services which Verizon Media currently offers to consumers in the UK. For each service please indicate:*
  - (a) *The purpose of the service and the target audience.*
  - (b) *The number of users in each of the last five calendar years in the UK.*
  - (c) *Whether and how the service is monetised i.e. whether directly or through digital advertising or other sources of revenue. For each service that Verizon Media monetises through means other than digital advertising, please describe the manner of monetisation. Where relevant, please also give the date when Verizon Media started to monetise the product.*
  - (d) *In what geographical location the business activities associated with the services are located, and whether the UK business is standalone, part of a geographical business unit (e.g. Europe), or whether activities targeted at UK users are managed together with activities targeted globally.*

**General Background**

- 1.1 These responses are provided by Oath (EMEA) Limited and Oath (UK) Limited (collectively referred to for the purposes of this response as "Verizon Media"). Oath (EMEA) Limited is a company incorporated in the Republic of Ireland with registered company number 426324 and primary place of business at 5-7 Point Square, North Wall Quay, Dublin 1, Ireland. Oath (EMEA) Limited is the provider of Verizon Media services in Europe, except as noted in the list of services below. Oath (UK) Limited is a limited company incorporated and registered in England & Wales with registered company number 03462696 and primary place of business at MidCity Place, 71 High Holborn, London, WC1V 6EA. Oath (UK) Limited provides the HuffPost UK service and also provides marketing services to Oath (EMEA) Limited (the principal) to support Oath (EMEA) Limited's provision of services in the UK.
- 1.2 By way of background, Oath (EMEA) Limited and Oath (UK) Limited's ultimate parent company is Verizon Communications Inc. ("Verizon"). In June 2015, Verizon completed its acquisition of AOL Inc., a leader in digital content and advertising. In June 2017, Verizon completed its acquisition of the operating business of Yahoo! Inc., a leader in communications, digital content and advertising, and provider of search services. Verizon combined Yahoo's operating business worldwide with Verizon's existing Media business, which included AOL's global operations and the content delivery platform of Verizon Digital Media Services, to create a new organization named Oath, which was rebranded Verizon Media in January 2019. Verizon Media includes diverse media and technology brands that engage approximately a billion people around the world.
- 1.3 These responses are not provided on behalf of Verizon or its subsidiaries in the United States. To the extent these responses relate to any Verizon entities in the United States, the information

is provided to assist the CMA but Verizon Media notes that these entities fall outside of the scope of the CMA's market study.

#### **Scope of Response**

- 1.4 Regarding the scope of these responses, as discussed with the CMA, Verizon Media is responding to this request only with respect to its properties that contain digital advertising – i.e., not with respect to its advertising intermediation services, which Verizon Media understands will be the subject of a separate request for information ("RFI"). Specifically, Verizon Media focuses on its local UK properties that have digital advertising (e.g., uk.yahoo.com, aol.co.uk) and U.S. properties such as TechCrunch, Tumblr and Engadget that do not have local UK versions but have UK users.
- 1.5 In addition, while Verizon Media understands that the CMA distinguishes between "advertising on the major online platforms" (i.e., the way that the platforms monetise their own content), and the wider intermediation of advertising sales on other publishers' websites through the 'ad tech stack,' the nature of Verizon Media's business makes it very difficult to delineate between these two channels of ad sales. Verizon Media offers numerous products and digital services to users, and it also has an advertising business covering the monetisation of both its owned and operated sites/services and those of third parties (i.e., it is both an online platform and an advertising intermediary). Whereas some online platforms have in-house sales teams for direct sales, but then sub-contract the programmatic monetisation of their sites to third parties, Verizon Media's products and digital services divisions essentially sub-contract the entire monetisation of those sites and services to Verizon Media's ad platform divisions.
- 1.6 For example, the HuffPost UK website is offered by Oath (UK) Limited, but Oath (EMEA) Limited manages the sale of ad inventory on HuffPost UK. What this means is that Oath UK provides the content on HuffPost UK (and controls any data that is received when users view such content), but Oath EMEA is responsible for the ads that appear in and around HuffPost UK content (and controls the data received when Oath EMEA provides those ads). Oath EMEA may package up the HuffPost UK inventory and sell that in a number of different ways (e.g., on an impression by impression basis via one of Verizon Media's programmatic ad platforms, or bundled with third party inventory and sold via an insertion order). In order to maximise the value of the inventory, some inventory may be sold via other ad intermediaries.
- 1.7 As such, it is difficult to answer this RFI in a way that neatly silos direct sold ads on Verizon Media's properties from ads that flow through Verizon Media's ad tech stack (that are more akin to advertising intermediation services). Verizon Media has sought to focus these responses on direct sold ads, to the extent possible. These responses, in combination with Verizon Media's responses to the upcoming request focusing on advertising intermediation services, will provide a more holistic view of Verizon Media's advertising business and associated data collection practices.
- 1.8 Finally, in response to the CMA's document requests, Verizon Media has produced relevant UK documents identified by a reasonable search and, where Verizon Media considers it may be helpful to the CMA, US generated documents that address points relevant to the UK. These latter documents will contain some information and practices not relevant to the UK (in particular because of the requirements of GDPR) but are included to provide context.

#### **List of Services**

- 1.9 Our user services are listed below. Verizon Media has addressed categorisation of Verizon Media's services as follows, as agreed with the CMA on a call to discuss the draft RFI on 11 July 2019 and as noted in Verizon Media's written comments on the draft RFI dated 12 July 2019. Verizon Media's properties for digital advertising can generally be categorized as falling into three categories: (1) Search; (2) Communications (i.e., Mail); and (3) Content (e.g., Yahoo and AOL homepages, Tumblr, HuffPost).

1.10 The user numbers are sourced from Comscore Media Trend Multiplatform UK and are calculated as the average monthly users per annum in terms of absolute numbers and % reach of the online population. Data from this source is available through Verizon Media's subscription only for the last four years. For more information related to Comscore and its methodology, please see the description following the list of services.

**Table 1A – List of Verizon Media Content Properties**

Service	Purpose and target audience	Number of users in the last five calendar years and percentage reach of the UK online population	Whether and how monetised	Geography
<b>Yahoo UK</b> yahoo.co.uk	A UK portal, which includes pages dedicated to news, sports, style, and finance, amongst others, addressing a general audience with original reporting and aggregation of third party content.	Jun-Dec 2015 - 21.6M (45%) 2016 - 21.4M (43%) 2017 - 16.5M (33%) 2018 - 12.9M (27%) Jan-Jun 2019 - 9.5M (19%)	Monetised through digital advertising	Oath (EMEA) Limited, based in Ireland, is the provider of Yahoo UK services to users in EMEA, including the UK.
<b>AOL UK</b> aol.co.uk	A UK portal, which includes pages dedicated to entertainment, finance, lifestyle, news, and weather, amongst others, addressing a general audience focussed on the aggregation of third party content.	Jun-Dec 2015 - 3.1M (6%) 2016 - 2.5M (5%) 2017- 2.1M (4%) 2018 - 2.7M (6%) Jan-Jun 2019 - 1.9M (4%)	Monetised through digital advertising	Oath (EMEA) Limited, based in Ireland, is the provider of AOL UK services to users in EMEA, including the UK.
<b>HuffPost UK</b> huffingtonpost.co.uk	A publisher focused on original reporting on news, entertainment and lifestyle targeted towards a social and status conscious audience who Verizon Media identify as empowered optimists. 60% of the audience is female, with the highest age % being amongst the 25-35 age group.	Jun-Dec 2015 - 4.6M (10%) 2016 - 4.8M (10%) 2017 - 5.8M (12%) 2018 - 6.3M (13%) Jan-Jun 2019 - 5.5M (11%)	Monetised through digital advertising.	Oath (UK) Limited, based in the United Kingdom, is the provider of HuffPost UK to users in the UK.

<b>Tumblr</b> Tumblr.com	A publisher of microblogs. Verizon Media does not consider Tumblr to be a "social media platform" as Verizon Media understands the CMA to use that term in these requests. <sup>1</sup>  55% of Tumblr's audience are aged below 34 and 55% are male.	Jun-Dec 2015 - (minimum reportable sample sizes not reached) 2016 - 8.3M (17%) 2017 - 6M (12%) 2018 - 4.5M (9%) Jan-Jun 2019 - 3.7M (8%)	Monetised through digital advertising.	Oath Inc., based in the U.S., is the provider of Tumblr services to users worldwide, including the UK. <sup>2</sup>
<b>TechCrunch</b> techcrunch.com	A publisher of original reporting focused on technology news, analysis of emerging trends in tech, and profiling of new tech businesses and products. The target audience is start-up founders, entrepreneurs, business leaders, early adopters, or anyone else that is impacted by the business of technology. 81% of TechCrunch's users are ABC1 <sup>3</sup> and 54% are aged 25-44.	Jun-Dec 2015 - 760K (2%) 2016 - 731K (1%) 2017 - 894K (2%) 2018 - 839K (2%) Jan-Jun 2019 - 660K (1%)	Monetised through digital advertising, events and a paid subscription service called "Extra Crunch" which provides access to a number of premium features such as premium content, discounts to events and newsletters. Extra Crunch launched in February 2019.	Oath Inc., based in the U.S., is the provider of TechCrunch (excluding Extra Crunch) services to users worldwide, including the UK.  Oath (EMEA) Limited, based in Ireland, is the provider of Extra Crunch services to users in EMEA, including the UK.
<b>Engadget</b> engadget.com	A publisher of original reporting focused on consumer technology. The service is targeted to early tech adopters and actively engaged, discerning audiences who are the first to buy the latest gadgets and tech. 75% of the audience are male and 50% are aged 18-44.	Jun-Dec 2015 - 1.4M (3%) 2016 - 1M (2%) 2017 - 832K (2%) 2018 - 827K (2%) Jan-Jun 2019 - 665K (1%)	Monetised through digital advertising	Oath Inc., based in the U.S., is the provider of Engadget to users worldwide, including the UK.

<sup>1</sup> Tumblr is a creative platform, does not have an integrated ad platform, and does not have many of the features of social media platforms which are the focus of the market study.

<sup>2</sup> On August 12, 2019, Verizon Media and Automattic Inc. announced that the companies have entered into a definitive agreement under which Automattic plans to acquire Tumblr.

<sup>3</sup> A, B and C1 are the highest three "social grades." Please refer to the official source of social grading for further information, available at: <http://www.nrs.co.uk/nrs-print/lifestyle-and-classification-data/social-grade/>.

Table 1B – List of Verizon Media Communications Properties

Service	Purpose and target audience	Number of users in the last five calendar years and percentage reach of the UK online population	Whether and how monetised	Geography
Yahoo Mail	An email service; targeted to a general audience	Jun-Dec 2015 - 9.7M (20%) 2016 - 9.2M (18%) 2017 - 9.8M (20%) 2018 - 10.1M (21%) Jan-Jun 2019 - 9.5M (19%)	Monetised through digital advertising and a paid subscription version called "Yahoo Mail Pro" which provides an ad-free experience. Yahoo Mail Pro launched in 2017, replacing the old premium Yahoo Mail subscription.	Oath (EMEA) Limited, based in Ireland, is the provider of Yahoo Mail services to users in EMEA, including the UK.
AOL Mail	An email service; targeted to a general audience	Jun-Dec 2015 - 1.9M (4%) 2016 - 1.3M (3%) 2017 - 1.2M (2%) 2018 - 1.2M (2%) Jan-Jun 2019 - 926K (2%)	Monetised through digital advertising.	Oath (EMEA) Limited, based in Ireland, is the provider of AOL Mail services to users in EMEA, including the UK.

Table 1C – List of Verizon Media Search Properties

Service	Purpose and target audience	Number of users in the last five calendar years and percentage reach of the UK online population	Whether and how monetised	Geography
Yahoo Search Yahoo UK & Ireland Web Search, Yahoo UK & Ireland Image Search, Yahoo UK & Ireland Video Search and Yahoo UK & Ireland News	An Internet search service; targeted to a general audience	Jun-Dec 2015 - 12.5M (26%) 2016 - 12.3M (24%) 2017 - 11.5M (23%) 2018 - 9.6M (20%) Jan-Jun 2019 - 9.5M (19%)	Monetised through digital advertising.	Oath (EMEA) Limited, based in Ireland, is the provider of Yahoo Search services to users in EMEA, including the UK.

AOL Search	An Internet search service; targeted to a general audience.	Jun-Dec 2015 - 5.2M (11%) 2016 - 1.1M (2%) 2017 - 791K (2%) 2018 - 252K (1%) Jan-Jun 2019 - 199K	Monetised through digital advertising.	Oath (EMEA) Limited, based in Ireland, is the provider of AOL Search services to users in EMEA, including the UK.
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#### Comscore Data

- 1.11 Comscore is the currency for planning, transacting, and evaluating media across platforms and has been regulated by the UK Online Measurement Company Ltd ("UKOM") since 2013.
- 1.12 Additional information about UKOM is available at <https://ukom.uk.net/>.

#### Comscore Methodology

***Panel Size: UK June 2019 = 105K Desktop, 12K Mobile (Approx. 2MM WW)***

- 1.13 The UKOM-endorsed Comscore approach to online audience measurement uses data from a metered panel combined with data from website, app and video tags. This is commonly known as a "hybrid" approach.
- 1.14 Panellists are recruited online, incentivised by either software download, tree planting, cash or vouchers. People who join the panel provide demographic information (their own and their household's), before downloading a piece of software (the meter) which tracks visits on their device(s) to websites and apps. In the case of smartphones and tablets, the meter varies slightly by operating system but essentially the same principles are applied to measure browser and app usage across all devices.
- 1.15 This hybrid approach ensures that the limitations of any single approach are minimised. For example, all media measurement panels struggle to capture out-of-home usage and, in the case of the internet, tend to under-report the use of smaller or niche sites (the "long tail") – but they do provide demographics. Tagging, on the other hand, ensures that all-location use is represented but it cannot yet deliver audience demographic data.

2. ***Please list all the services which Verizon Media currently offers to businesses in relation to digital advertising in the UK. For each service, please indicate:***

- (a) ***The purpose of the service and the target audience;***
- (b) ***How the service is monetised. For each service that you monetise (in part) through means other than digital advertising, please describe the manner of monetisation. Where relevant, please also give the date when you started to monetise the product. Where the service is aimed at advertisers or publishers, please explain what fees you charge. If there is no charge for the matching / auctioning service that you provide which is separate from the charge for the service of placing impressions in front of users/viewers, please state where that is the case; and***
- (c) ***In what geographical locations the business activities associated with the services are located, and whether the UK business is standalone, part of a geographical business unit (e.g. Europe), or whether activities targeted at UK users are managed together with activities targeted globally.***

2.1 Verizon Media currently offers several services to businesses in relation to digital advertising in the UK, as set out Table 2.

**Table 2 - services which Verizon Media offers to businesses in relation to digital advertising in the UK.**

Service	Purpose and Target Audience	Whether and how monetised	Geography
Verizon Media DSP ("DSP" means demand side platform)	<p>The platform enables advertisers and agencies to purchase digital advertising inventory (across a range of advertising units such as display, video, native, and audio) and devices made available through advertising exchanges and supply-side platforms (e.g., Verizon Media owned and operated inventory and third party inventory can be purchased through this platform).</p> <p>Features of the Verizon Media DSP include: real time bidding (RTB), invitation-only auctions where one publisher or a select number of publishers invite a select number of buyers to bid on inventory (private marketplace), brand safety, targeting, transparency, viewability and audience verification, and access to Verizon Media audience data as well third party data from data providers.</p>	<p>Verizon Media charges the following fees to clients with access to Verizon Media DSP:</p> <p>(i) media cost (cost of the inventory that was purchased; typically purchased on a CPM (cost per thousand impressions) basis);</p> <p>(ii) platform fee (a fee for using the Verizon Media DSP that is charged as a percentage of the media cost);</p> <p>(iii) data fee (a fee that applies to the use of data by a user of the Verizon Media DSP to target an advertising campaign and is charged generally on a fixed CPM basis); and</p> <p>(iv) managed services fee (Verizon Media offers managed services to Verizon Media DSP users to facilitate a buyer's access to and use of the Verizon Media DSP (e.g., campaign management services), and the fee for such services is charged as a percentage of the media cost).</p>	Oath (EMEA) Limited, based in Ireland, is predominantly the provider of Verizon Media DSP services to users in EMEA, including the UK.
Verizon Media Exchange	<p>The Verizon Media Exchange is an online marketplace that connects buyers and sellers for the purchase and sale of advertising (e.g., display, native, and video formats) programmatically. Verizon Media offers two exchanges:</p> <p>(i) the Verizon Media Exchange which enables the purchase and sale of inventory for display advertising (note that based on prior acquisitions, Verizon Media currently operates three</p>	<p>Verizon Media only charges the media cost to customers (primarily demand-side platforms) with access to the Verizon Media Exchange.</p>	Oath (EMEA) Limited, based in Ireland, is predominantly the provider of Verizon Media Exchange services to users in EMEA, including the UK.

	<p>display exchanges, but these exchanges are provided under the Verizon Media Exchange offering); and</p> <p>(ii) the Verizon Media Video Exchange enables the purchase and sale of inventory for video advertising.</p> <p>The main features of this marketplace include: real time bidding (RTB) and invitation-only auctions (private marketplace).</p>		
<b>Verizon Media SSP</b> (“SSP” means supply-side platform)	This is a platform for sellers of digital advertising inventory (including websites, mobile applications, and other digital media properties) to sell their advertising inventory through exchanges to buyers, including advertisers, agencies, agency trading desks, and demand-side platforms.	Verizon Media generally charges a percentage of the advertising spend for the seller's digital advertising inventory as a fee to use the Verizon Media SSP.	Oath (EMEA) Limited, based in Ireland, is predominantly the provider of Verizon Media SSP services to users in EMEA, including the UK.
<b>Verizon Native Media</b>	Verizon Media offers an ad network for native advertising inventory which enables buyers, including advertisers and agencies, to purchase native advertising units across all devices (e.g., Verizon Media owned and operated inventory and third party publishers' inventory). Verizon Media Native provides a managed service, with buyers working with Verizon Media sales teams to manage advertising campaigns, and a self-serve solution, where advertisers, typically those with smaller budgets, can create their own accounts, view traffic, and manage their campaigns.	The price types available through Verizon Media Native are CPC (cost-per-click), CPM (cost-per-thousand impressions), and CPV (cost-per-view).	Oath (EMEA) Limited, based in Ireland, is predominantly the provider of Verizon Media Native services to users in EMEA, including the UK.
<b>Managed Services</b>	Verizon Media offers a managed advertising service enabling buyers, such as advertisers and agencies, to issue insertion orders (commonly known as “Insertion Orders”) that Verizon Media fulfils from publisher inventory.	The costs for managed advertising services are identified on the Insertion Order which include the media cost (cost of the inventory that was purchased).	Oath (EMEA) Limited, based in Ireland, is predominantly the provider of Verizon Media managed services to users in EMEA, including the UK.
<b>RYOT Studio Services</b>	Verizon Media's RYOT Studio offers a variety of creative services to buyers, such as advertisers and agencies, assisting them to run enhanced	The costs for RYOT Studio Services are identified as an additional “Production Fee” item on the relevant Insertion Order. In some	Oath (EMEA) Limited, based in Ireland, is predominantly the provider of RYOT Studio Services to users in

	advertising campaigns online and offline, for example, advertiser-branded content, goods and/or experiences. The provision of RYOT Studio Services is usually linked to a general managed advertising campaign (see "Managed Services" row above). RYOT Studio Services are booked by a buyer on the relevant Insertion Order and in some cases further detailed in an addendum to such Insertion Order.		EMEA, including the UK.
Flurry	Verizon Media offers a mobile analytics and monetisation service that provides developers with insights relating to mobile application usage and access to advertising solutions to monetise their mobile applications.	Verizon Media generally shares with the developer a portion of the revenue earned by Verizon Media from the placement of advertising on inventory made available by a developer through its application(s).	Flurry, Inc. based in the U.S. (owned by Oath (Americas) Inc.), is the provider of Flurry services to users worldwide, including the UK.
Reserved	Verizon Media offers an ad arrangement where clients can place ads directly on Verizon Media owned and operated inventory or through Verizon Media's Microsoft partnership and Verizon Media manages campaigns for them. Ads are reserved by the client to run on specific sites at specific times (e.g., on Yahoo Sports during the World Cup). This adformat is considered premium.	Verizon Media charges the following fees to clients that purchased ads that are reserved:  (i) media cost (cost of the inventory that was purchased); and  (ii) when reserved ads are booked through any of the platforms listed above, the fees associated with the platform are also charged to the client.	Oath (EMEA) Limited, based in Ireland, is predominantly the provider of Verizon Media reserved services to users in EMEA, including the UK.

3. ***#Please explain Verizon Media's long-term strategy for developing its digital advertising business, including consideration of any potential changes to your current approach to monetisation, both direct and indirect, of the goods and services you offer.***

*Please provide internal documents to support your answer. In particular, please explain:*

- (i) how you expect the role of digital advertising within your business to develop over time; and*
- (ii) how you expect the revenues that Verizon Media earns from digital advertising to change over time (in absolute terms and as a proportion of Verizon Media's total UK revenues).*

3.1 Please see the presentation attached in Annex 012 .

3.2 Verizon Media's strategy is built on providing consumers with owned and operated search properties, communications, and content offerings and providing other businesses and partners access to aggregated audiences through digital advertising platforms. Verizon Media's long-term EMEA content and communications strategy is centred around growing its member-centric ecosystem, which aims to grow Verizon Media's premium professionally produced content offering, creating connections and growing commerce across its core content offerings and external partners. Verizon Media aims to grow its advertising intermediation business in the medium term by aggregating the supply of inventory from both Verizon Media's content and communications brands and other premium publishers (via partnership agreements) and promoting this to advertisers as a brand safe alternative marketplace to user generated sites. The advertising intermediation portion of the business is the main source of short- to medium-term revenue in the EMEA region.

3.3 The online content and services market continues to evolve as online users are migrating from traditional desktop to mobile and multiple-device usage, and [REDACTED] [REDACTED] from declining search and desktop usage. This has been accelerated by the rapid growth in new consumer services which compete for users' attention, in particular social media. Also, there is a continued shift towards programmatic advertising in response to advertiser demand which presents opportunities to connect online advertisers with the appropriate online users in a rapid environment. In facing these challenges, Verizon Media plans to implement initiatives to realize synergies across all of its media assets and build services around its core content pillars to diversify and grow revenue. Verizon Media is experiencing positive growth in mobile usage and video products and [REDACTED]. Like other content and services providers, Verizon Media seeks to maximise advertising revenues associated with its consumer content and services. This is achieved in part via inventory sales on Verizon Media's own ad platforms but also relies on partnerships with other platforms and their continued viability over the longer term to provide choice and price competition in the market.

3.4 Overall, the UK continues to be an important market to Verizon Media's EMEA business but presents a range of challenges. The competitive challenge from market leaders and entry to the digital advertising market of significant data-owning companies continues to disrupt the market, which requires constant adjustments to Verizon Media's business strategy. Verizon Media's business continues to be impacted by external shocks, such as regulation and action by other players in the ecosystem.

3.5 In terms of regulation, the threat of further market-wide regulation of consumer content and other services – from both the UK and the EU – adds to costs and weighs on the confidence of investors in non-dominant players. GDPR has had well documented impacts on the digital advertising market and has resulted in some ad tech companies leaving the UK market (see, for example, article available at: <https://truthonthemarket.com/2019/05/24/gdpr-after-one-year-costs-and-unintended-consequences/>). [REDACTED] At the same time, studies show that market leaders in demand and supply-side advertising, saw their market share increase.

3.6 The Reuters Institute for the Study of Journalism at Oxford University conducted a study, attached as **Annex 001**, on changes in third-party content and cookies on European news websites after GDPR that shows how much GDPR implementation has hit non-dominant players. Their findings: "*Google (96%), Facebook (70%), and Amazon (57%) remain present on the highest number of the news sites in our sample; of these, only Facebook has seen a significant drop in reach after GDPR (down five percentage points). But most of the other companies with the widest presence in April [2018] have seen significant drops in their post-GDPR reach, in many cases of ten percentage points or more.*" For example, according to the study reference above, Verizon Media dropped from 57% to 44%. See the Reuters Institute study referenced above at page 5.

3.7 Other players in the ecosystem — such as those offering internet browser software — perform gate-keeping roles in the digital advertising and content market. Companies like Verizon Media

rely on them being neutral in the value chain in order for Verizon Media to maintain the relationship with end users and help manage legal compliance with GDPR. For example, any change to browsers' neutral posture presents an existential threat to both competition in the third party digital advertising market and to the ability of digital content and services providers (particularly those without logged-in users) to generate revenues to fund their content production and journalism.

3.8

Given these challenges, [REDACTED]

[REDACTED] Specifically, regarding how Verizon Media expects the role of digital advertising within its business to develop over time, [REDACTED]  
[REDACTED]

the vast majority of Verizon Media's consumer services are offered free-of-charge to users because they are monetised through digital advertising. As such, Verizon Media expects digital advertising to remain the most significant source of revenue for its business.

4.

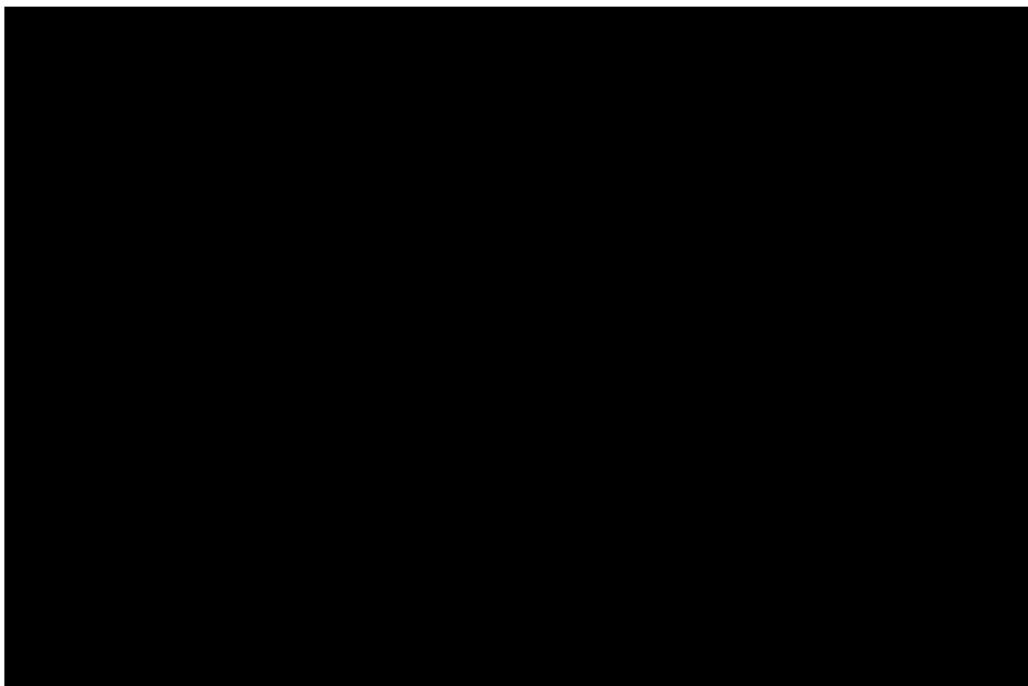
***Please explain Verizon Media's relationship with Microsoft, whereby search results and search advertising are provided by Bing. In your response, please:***

(a) ***Detail the key terms of the contractual relationship with Microsoft, including revenue sharing arrangements and provide a copy of the key contractual documentation.***

(b) ***Explain which aspects of Verizon Media's search services are controlled by Microsoft and which are controlled by Verizon Media.***

(c) ***Explain the rationale for entering into this commercial relationship.***

(a) Detail the key terms of the contractual relationship with Microsoft, including revenue sharing arrangements and provide a copy of the key contractual documentation



[REDACTED]

**(b) Explain which aspects of Verizon Media's search services are controlled by Microsoft and which are controlled by Verizon Media**

4.2 Microsoft controls the algorithmic search results and search advertising that Verizon Media displays on search results pages and on publisher landing pages. Microsoft also controls the order in which both the algorithmic and search advertising results appear. Verizon Media controls the end user experience, including the presentation of such search results (e.g., how many results and ads show on the search results page, where the ads are displayed on the page, etc.), search suggestions, and "knowledge cards" of relevant information, as shown next to search results (also known as direct answers). In addition, in certain circumstances, Verizon Media may block certain URLs from appearing in search results relating to a query for a data subject's name pursuant to the "right to be forgotten."

**(c) Explain the rationale for entering into this commercial relationship**

4.3 By way of background, Yahoo previously operated a search engine that crawled and indexed the web and provided its own algorithmic search results. Yahoo invested heavily in this business between 2003 to 2009. Yahoo entered the search advertising business in 2003 with its \$1.6 billion acquisition of Overture. In 2009, Yahoo entered into its initial partnership with Microsoft for Microsoft to provide algorithmic search results and search advertising for Yahoo's search service. In EMEA, Microsoft was the exclusive provider of algorithmic search results and search advertising to Yahoo. In 2015, the parties amended the agreement to move the search advertising sales function to Microsoft. In the U.S., Yahoo continued to provide some of its own search advertising in combination with Microsoft's up until signing the renewed partnership between Verizon Media and Microsoft in 2018. Yahoo's public filings describing the partnership and 2015 amendment in more detail are available at: <https://www.sec.gov/Archives/edgar/data/1011006/000119312509163909/d8k.htm> and <https://www.sec.gov/Archives/edgar/data/1011006/000119312515138387/d911278d8k.htm>.

4.4 Verizon Media entered into its renewed agreement with Microsoft in 2018

[REDACTED]

**Role of data in Verizon Media's services**

5. **Please explain how Verizon Media uses data to develop and maintain Tumblr, including the following aspects:**

- (a) What types of data are used and how;**
- (b) How these data are obtained. What investments are required to obtain and apply these data to the development and maintenance of these services?**
- (c) To what extent these data need to be up-to-date;**
- (d) Whether there are economies of scale in Verizon Media's use of data, including an explanation of at what point and why there may be increasing or decreasing marginal returns from using a greater quantity of data;**

- (e) *The extent to which the quantity and quality of data is more important than the skills or technology (e.g. algorithms) that are applied in using it. Please distinguish between different types of data as appropriate;*
- (f) *How new technology is affecting how these data can be used. Please describe your plans to address these developments.*

**(a) What types of data are used and how**

5.1 Verizon Media attaches at **Annex 003** the Tumblr privacy policy which sets out a comprehensive list of the data which is collected and used for the operation of Tumblr. In summary:

- (a) With respect to the creation of a user account, Tumblr collects user email address, age, a user created user name.
- (b) With respect to digital advertising, Tumblr collects device information (IP address, mobile id) and language settings of phone or browser in order to serve local language UI.
- (c) With respect to individual user activity on the site, Tumblr collects data on time spent, number of posts, tags users have created or selected as their interests, reblog activity, how long since they last posted.
- (d) With respect to site activity, Tumblr collects data on trending and most visited blogs, posts and tags, total desktop and mobile average unique visitors (DAUs and MAUs).

**(b) How these data are obtained. What investments are required to obtain and apply these data to the development and maintenance of these services?**

5.2 For how this data is obtained:

- (a) With respect to mobile, device ids; and
- (b) With respect to desktop, cookies.

5.3 The Tumblr privacy policy at **Annex 003** provides further detail on how this data is obtained.

5.4 The following investments are required to obtain and apply data to services:

- (a) Reporting tools; and
- (b) People (engineers and data scientists).

**(c) To what extent these data need to be up-to-date**

5.5 Ideally, data should be tracked and refreshed in real time as activity occurs.

**(d) Whether there are economies of scale in Verizon Media's use of data, including an explanation of at what point and why there may be increasing or decreasing marginal returns from using a greater quantity of data**

5.6 There are economies of scale in data use in that a greater quantity of data can provide a greater variety of and more granular insights into user activity and trends.

**(e) The extent to which the quantity and quality of data is more important than the skills or technology (e.g. algorithms) that are applied in using it. Please distinguish between different types of data as appropriate:**

5.7 Skills, technology, and tools are important for understanding quantities of data, otherwise data at a large scale is not usable or understandable. Data quality is always important in Verizon Media's processes, as "garbage in equals garbage out" – i.e., data of poor quality yields poor or questionable statistics and inferences.

**(f) How new technology is affecting how these data can be used. Please describe your plans to address these developments.**

5.8 New technology brings enhanced meaning, analysis and interpretation to data sets. To better understand its data Tumblr has leveraged home-grown machine learning algorithms and tools, [REDACTED] This mix has yielded greater utility in Tumblr's data.

6. *Please list and describe all the types of data Verizon Media uses for digital advertising. Please include both data that Verizon Media generates from its user services and data it gathers from elsewhere. For each data source please describe:*

- (a) the data gathered (e.g. demographics, search history, etc.) and why it is gathered;**
- (b) how frequently the data is gathered;**
- (c) whether this data is generated by a Verizon Media service, if so which one, or by a third party, if so please identify it;**
- (d) whether the amount and / or type of data gathered changes depending on the device and method used to access the product. If so, please explain why this may be;**
- (e) under which circumstances the data generated by Verizon Media is available to third parties on a standalone basis or in conjunction with purchasing of other Verizon Media products; and**
- (f) how Verizon Media ensures that data is presented in a standardised format that is readable across Verizon Media services and products of third parties.**

6.1 This response addresses those types of data that Verizon Media collects from its user services and elsewhere for digital advertising, focusing on Verizon Media's owned and operated products and services. As discussed with the CMA, Verizon Media is responding to this request only with respect to Verizon Media properties with digital advertising (i.e., not Verizon Media's advertising intermediation services).

6.2 An overview of Verizon Media's data practices is available at: <https://www.oath.com/en-gb/my-data/#sharingdata>.

**(a) the data gathered (e.g. demographics, search history, etc.) and why it is gathered**

6.3 Generally, all of the data below is gathered to inform Verizon Media's understanding of the applicable users so that it can, directly or indirectly, provide those users with personalised advertising and content. Verizon Media does so by creating a user profile for use in personalised advertising and for personalising content using certain identifiers, depending on whether the users in question are registered or non-registered.

- (a) Information users provide to Verizon Media:** Users voluntarily provide Verizon Media with registration information, including declared name, email address, phone number, date of birth, username, password, and similar information when they register for an account with a Verizon Media service or brand. As part of their use of Verizon Media's services, users also may transmit to us user-generated content that contains personal

information, such as comments, messages or photos. For specific services, like Yahoo Finance or Yahoo Sports, users may provide information about stocks they want to track, sports teams they want to follow, or other interests and hobbies they want to pursue on Verizon Media's platform. Verizon Media also collects information:

- (i) When users sign up for one of Verizon Media's paid services (such as payment information).
- (ii) When a user uses Verizon Media's services to communicate with others or to post, upload or store content (such as comments, photos, voice inputs, videos, emails, messaging services and attachments). For digital advertising, Verizon Media will process certain user-generated content for personalised content and advertising.
- (iii) When a user otherwise uses Verizon Media services, such as to view the content that it makes available, perform search queries or install any Verizon Media software such as plug-ins. For digital advertising, Verizon Media will process information such as search queries for personalised content and advertising.
- (b) Information collected from or about users' devices ("Device information"): Verizon Media collects information from devices used to access its services and the sites or mobile applications of Verizon Media's business customers. This information includes device-specific identifiers and information such as IP address, cookie information, mobile device and advertising identifiers, browser version, operating system type and version, mobile network information, device settings, and software version information. This data is used to provide Verizon Media's products and services, to fight fraud and ensure reliable experiences, to measure business performance for Verizon Media's own services and those of its customers, to facilitate research and innovation, to provide customer service, and to provide personalisation and customisation that make Verizon Media's products and services more useful.
- (c) Location information: Verizon Media collects and receives location information both directly from users and indirectly from its business customers and trusted partners. Location information may include latitude and longitude coordinates, addresses, postcodes, city and country names. Users may provide their location information when they upload content or Verizon Media may collect location information when a user requests a location service (e.g. using Yahoo Weather to request local weather). Location data may be used to provide location-specific product features and to improve Verizon Media's services by personalising the content and advertisements on its services. Verizon Media may also receive location information from third parties, for example from customers with whom Verizon Media partners to provide advertising. Additionally, Verizon Media may infer users' approximate location information from the IP address of their devices to facilitate the provision of its services (e.g., determining what country a user is in to ensure appropriate language and display of content or advertising).
- (d) Information from cookies and other technologies: When Verizon Media's users access content, advertising, websites, mobile applications, and other products, Verizon Media uses technologies such as cookies and web beacons to collect information that helps Verizon Media to better understand users' activity on and off Verizon Media's services and better tailor content and advertisements to users. This information may include the kind of content or ads served, viewed or clicked on; usage information, such as the frequency and duration of activities; search terms, sites visited, content or advertisement engagement; and data needed for advertising measurement and reporting (e.g., whether a user went on to visit an advertiser's website, downloaded an advertiser's app, purchased a product or service advertised or took other actions).

(e) Data gathered from elsewhere: Verizon Media collects information about users when it receives this information from other users, third parties and affiliates, such as when users connect their accounts to third-party services or sign in using a third-party partner (such as Facebook or Twitter); from publicly available sources; from advertisers about user experiences or interactions with their offerings; and when Verizon Media obtains information from third parties or other companies, such as those that use its services. This may include user activity on other sites and apps as well as information that those third parties provide to that user or us. Verizon Media also engage third party service providers to collect information from its owned and operated properties to, for example, measure ads, check whether delivered ads were actually viewable by users ("viewability" data) and to detect fraud.

**(b) how frequently the data is gathered**

6.4 This data is continuously collected subject to compliance with law and user choices, including those controls described in response to Question 18.

**(c) whether this data is generated by a Verizon Media service, if so which one, or by a third party, if so please identify it**

6.5 This response focuses on Verizon Media's first party business (i.e., Verizon Media's owned and operated properties, described in response to Question 1) and data used on those services. Data that is collected from third parties when providing advertising intermediation services will be addressed in response to the upcoming RFI relating to advertising intermediation.

6.6 Verizon Media collects data from all of its owned and operated products and services. The data collected is largely consistent across these properties (subject to, e.g., user choices). Some data, however, is service specific (e.g., search data), and "Information that users provide to us" is largely limited to Verizon Media services that require registration, such as Yahoo Mail and AOL Mail.

6.7 Data is collected using Verizon Media's proprietary technology, except as explained below regarding third party data. For example, Verizon Media has a cookie that identifies a single browser on a single device and is used for identity tracking online, and has a JavaScript web analytics library which collects data for measurement of user engagement interaction on Verizon Media's owned and operated and partner properties. Such technology may be used to collect "Device Information," "Location Information," and "Information from cookies and other technologies," and from registered and unregistered users of Verizon Media's services.

6.8 Third party data may be purchased or licensed from data vendors (subject to relevant user consents), or Verizon Media may engage third parties to collect data on its behalf both on Verizon Media's owned and operated sites and third party sites (e.g., data to detect fraud and to measure viewability).

**(d) whether the amount and / or type of data gathered changes depending on the device and method used to access the product. If so, please explain why this may be**

6.9 Yes. The amount or type of data changes depending on the device and method used to access the product. There are two distinguishing variables: (1) whether the user in question accesses Verizon Media's services via a mobile or desktop, and (2) whether the user in question is interacting with Verizon Media on a registered or non-registered basis. When Verizon Media interacts with a user on a mobile device, it collects different identifiers and other device information for that user's device (e.g., the device's IDFA and device type). Verizon Media also collects additional information via its mobile SDK, as compared to what it collects from its desktop users via their browsers, which is limited to, for example, IP address and cookie IDs. And when Verizon Media interacts with registered users (as compared with users that interact with Verizon Media on a non-registered basis), it uses different internal and external identifiers, such as Apple's IDFAs and Google's GPSAID/AID.

**(e) under which circumstances the data generated by Verizon Media is available to third parties on a standalone basis or in conjunction with purchasing of other Verizon Media products**

6.10 Verizon Media does not consider that it shares “personal data” with third parties on a standalone basis for advertising purposes; however, please see the information below. Please also see the response to Question 16 for details regarding the data Verizon Media shares with third parties, or that third parties may collect directly. Details of Verizon Media's ad tech partners are available at: <https://policies.oath.com/ie/en/oath/privacy/topics/thirdparties/index.html#adtech>.

- (a) Third parties that operate on Verizon Media sites are able to collect certain data (such as IP address, page header information, browser or device information) from Verizon Media users via cookies and similar technologies for purposes of providing personalised content and advertising, and other functions (see also the response to Question 17).
- (b) Verizon Media shares certain “bid request” data with third party Demand Side Platforms (i.e., bidding technology that enables ads to be purchased programmatically) to enable them to bid on Verizon Media's ad inventory that Verizon Media sells via ‘real-time bidding’.
- (c) Verizon Media makes data “segments” available to its buyers to help them target certain interest groups (e.g., coffee lovers, DIY enthusiasts etc) via its advertising platforms (it does not share user-level data with buyers to facilitate targeting).
- (d) Verizon Media may share aggregated or pseudonymous data with its partners, such as publishers, advertisers, measurement analytics, or app providers. This information is used for purposes such as reporting the performance of advertisements to advertisers and is subject to legal safeguards (e.g. contractual prohibitions on the re-identification of aggregated or pseudonymous data).
- (e) Verizon Media shares personal data with third parties outside of Verizon Media where a user consents to such sharing.
- (f) Like most other companies, Verizon Media engages service providers to work with or to perform services on its behalf. Verizon Media shares personal data with trusted service providers to allow them to perform functions such as analytics and advertising related services. Verizon Media requires service providers to comply with appropriate confidentiality measures and to use its customers' personal information only as directed and for no other purpose, except where it is de-identified or used on an aggregated basis.

**(f) how Verizon Media ensures that data is presented in a standardised format that is readable across Verizon Media services and products of third parties**

6.11 As mentioned above, Verizon Media use various internal and external identifiers to understand its users, and stores the data in structured formats. With respect to advertising data, Verizon Media's platforms are built to industry standards, including the IAB TechLab's OpenRTB and IAB Europe's Transparency & Consent Framework. With respect to Verizon Media's internal systems, Verizon Media relies on standardised structures so that its systems can consistently interoperate.

7. **# Please explain how the types of data described in the previous question are used to target digital advertising to specific audiences (for both search and display). Please**

*support your answer by providing internal documents. For each data source please explain:*

- (a) whether it is used to target advertising directly;*
- (b) how it is analysed and combined with other data sources to predict or estimate additional user characteristics;*
- (c) any differences between how it is used for search advertising and display advertising;*
- (d) the relative economic value of each data source and provide an explanation of the reasons for its value (e.g. does it increase the value of inventory to advertisers and hence the revenue that can be earned by holders of inventory? How does this differ between search and display advertising?);*
- (e) the extent to which these data need to be up-to-date;*
- (f) the extent to which the data is made directly available to advertisers; and*
- (g) whether and how the use of data differs between situations where Verizon Media is selling its own inventory and where it is selling inventory on behalf of third parties.*

7.1 Verizon Media does not offer, sell or manage search advertising, as explained in the response to Question 4. Therefore, Verizon Media has responded to this Question 7 solely with respect to display advertising and have not provided a response to Question 7(c) which relates to search advertising.

(a) **whether it is used to target advertising directly**

7.2 Please see the DSP presentations attached at **Annex 011-012**

7.3 Verizon Media believes that ads are more useful to people when they advertise the products or services people are likely to be interested in. For this reason, Verizon Media uses the information it collects, receives or infers to help it select relevant ads. Verizon Media displays targeted advertisements based on information it has collected or received from users. Neither inferred data, nor data declared by a user, is shared directly with advertisers unless such data is aggregated. When running an advertising campaign, Verizon Media may assume that people who access Verizon Media services, read certain articles on Verizon Media's properties and interact with or click specific ads meet a certain targeting criteria. Targeting criteria are often inferences or statistical guesses. Verizon Media also has its own data sources that may indicate certain characteristics of the user of a device, such as age, gender and declared interests.

7.4 Verizon Media also permits third parties to show advertisements on its sites and applications, and such third parties collect information from users' browsers or devices through their own cookies and other similar technologies. These third-party businesses help Verizon Media deliver ads to people who are most likely to be interested in seeing them.

(b) **how it is analysed and combined with other data sources to predict or estimate additional user characteristics**

7.5 Verizon Media may select ads based on the content of the page or app on which they appear. For instance, if a user is viewing a news article about a recently released album, Verizon Media may show them an ad for a music store. Similarly, ads in Yahoo Finance may be related to financial services. These kinds of ads are sometimes called "contextual ads."

- 7.6 Verizon Media may select ads based on information it has collected or received about activities and interests on websites and apps on users' devices. These ads are sometimes called "interest-based ads." Some interest-based ads are based only on an isolated online activity, such as if a user was to go to an online bookstore and view a particular novel. The bookseller might want to show a user an ad for that novel because they are probably more interested in buying it than the average online user. This kind of interest-based advertising is sometimes called "retargeting" or "remarketing."
- 7.7 Other interest-based ads are shown based on a user's online activities over time and across different websites and apps used on a user's linked devices (such as a user's computer, mobile phone, tablet, etc.), both on and off Verizon Media services. Verizon Media may collect information about a user's online activities in this way in order to make predictions about what products or services might be of interest to a user. Based on these predictions, Verizon Media and other companies may categorise a user as belonging to a "segment" of users to which advertisers may be interested in showing ads. For example, if a user has recently visited a car dealer's website, they might be grouped in an "Auto Intenders" segment, and a car dealer who places ads with us might want us to show ads to the users who are in this segment. A list of certain categories for advertising from the Verizon Media Privacy Centre is available at <https://policies.oath.com/us/en/oath/privacy/standardcategories/index.html>. The Privacy Centre is available at: <https://policies.oath.com/ie/en/oath/privacy/index.html>. Please note the listed categories do not include custom categories, such as those created by a specific advertiser.
- 7.8 Verizon Media also selects personalised ads based on other information users provide or that it collects from other sources, such as gender, age or location, searches conducted, what user's friends or contacts recommend to them, and apps on the device.

**(c) any differences between how it is used for search advertising and display advertising**

- 7.9 Information about browsing behaviour and search queries may be used to display more relevant ads. Additional information is available on Verizon Media's Search privacy page, attached as **Annex 004** and available at <https://policies.oath.com/in/en/oath/privacy/products/searchservices/index.html>.
- 7.10 Verizon Media's automated systems may analyse all content (including email and messenger communications) to match and serve targeted advertising. Additional information is available on Verizon Media's Communications Services page and the FAQ for Communications Services & Analysis of Photos, Attachments & Other Content, attached as **Annexes 006 and 008** and available at <https://policies.oath.com/ie/en/oath/privacy/products/communications/index.html>; and <https://policies.oath.com/ie/en/oath/privacy/products/communications/faq/index.html>.
- 7.11 Verizon Media may tailor ads based on location. Additional information is available on Verizon Media's Location privacy page, attached as **Annex 010** and available at <https://policies.oath.com/in/en/oath/privacy/topics/location/index.html>.
- 7.12 Verizon Media may use information provided by users, such as age or gender, to tailor ads when a user is logged in or if they have stored this information with a Verizon Media service (even if they are logged out). Verizon Media may also use this information to tailor ads when users access Verizon Media services.
- 7.13 Verizon Media uses a variety of tools, including, but not limited to, IP Addresses, web beacons, SDKs, cookies, and similar technologies, to support Verizon Media advertising services. Additional information on these tools from Verizon Media's Privacy Centre is attached as **Annexes 005,009, and 007** and available at <https://policies.oath.com/in/en/oath/privacy/topics/ipaddress/index.html>; <https://policies.oath.com/in/en/oath/privacy/topics/webbeacons/index.html>; and <https://policies.oath.com/in/en/oath/privacy/topics/cookies/index.html>.

- 7.14 Verizon Media may tailor ads to users based on people they have connected with and their demonstrated or declared interests.
- 7.15 Verizon Media may personalise ads based on activities of accounts and devices associated with users.
- 7.16 Verizon Media uses data that it receives from other sources to help it provide more effective advertising. For example, it may use data that is available from public or commercial sources and combine it with other data Verizon Media has collected or received about a user or the user's device for these purposes.
- 7.17 Verizon Media does not use, or allow others to use, financial information (which may be linked to users' accounts) or sensitive data (as defined by law and advertising self-regulation) to determine eligibility for health insurance, life insurance or employment. Verizon Media also does not target ads to users based on sensitive information or special categories of sensitive information such as health data, a person's sex life or sexual orientation.
  - (d) the relative economic value of each data source and provide an explanation of the reasons for its value (e.g. does it increase the value of inventory to advertisers and hence the revenue that can be earned by holders of inventory? How does this differ between search and display advertising?)**
- 7.18 It is difficult to break down the value of each ingredient of first party data. However, personalised ads (i.e., those that include some level of targeting) are more attractive to potential buyers and therefore command a higher rate from advertisers. Based on internal estimates, [REDACTED]

**(e) the extent to which these data need to be up-to-date**

- 7.19 Targeting data with a unique identifier is likely to be personal data, and the law requires personal data to be kept accurate and up to date (and not stored for longer than is necessary for the purposes for which it was collected). Also, the nature of the data impacts upon how up-to-date it needs to be. Some data can go "stale" relatively quickly. For example, users may be sent advertisements based on what is believed to be their current purchasing intent (e.g., that the user is currently in the market for a new car or thinking of purchasing a ski holiday). Such intents are transient and therefore data should be kept up-to-date. However, declared or inferred data may indicate users' interests or hobbies, which are more enduring.

**(f) the extent to which the data is made directly available to advertisers**

- 7.20 There is often an advertising agency and/or a third party Demand Side Platform or other intermediary between Verizon Media and the ultimate advertiser (although Verizon Media does have direct relationships with advertisers), so Verizon Media regularly refers to "buyers" or "demand partners" rather than advertisers.
- 7.21 Verizon Media does not provide user/device-level data (i.e., personal data) to buyers that use its Demand Side Platform – which is Verizon Media's self-serve advertising platform for buyers – or when buyers buy advertising inventory via an Insertion Order. However, data may be made available to buyers in certain situations (e.g., bid request data is shared with third party DSPs), as set forth in response to Question 6(e).

**(g) whether and how the use of data differs between situations where Verizon Media is selling its own inventory and where it is selling inventory on behalf of third parties**

7.22 There may be differences between how Verizon Media sells its own inventory and third party inventory, depending on the circumstances, as explained below. Verizon Media can control what data it collects and it has control over how it uses such data, provided that it is in accordance with the law and internal policies. Third parties have control over what data they send to Verizon Media, or that they permit Verizon Media to collect. And Verizon Media must comply with its contract with any applicable third party, which may differ from its internal policies (e.g., it may be more restrictive in terms of data usage). [REDACTED]

8. *Please explain how Verizon Media's use of data in digital advertising has evolved since the formation of Verizon Media in June 2017. How has the quantity and quality of data impacted on the services Verizon Media offers and on its innovation?*

8.1 The formation of Verizon Media as a result of Verizon's acquisitions of AOL and Yahoo delivered an integrated advertising solution composed of enhanced advertising inventory and data solutions. Verizon Media drives cost and operational efficiencies for its customers, partners and suppliers, without compromising consumer privacy. Verizon Media uses data to optimise campaigns, improve products, target campaigns, report to its advertisers and carry out various other services for Verizon Media's advertising partners. The success of this depends on the quality and quantity of data, which Verizon Media continuously seeks to improve.

#### **Quantity**

8.2 Naturally the quantity of data upon integrating AOL and Yahoo provided the combined Verizon Media business with increased scale, and provided the advertising market with a solution with larger pools of data for targeting and insights, essentially providing advertisers with de-duplicated quality data at scale. However, since June 2017, Verizon Media has seen the implementation of GDPR, which has impacted the scale of Verizon Media's overall data and the ways in which Verizon Media can use that data.

#### **Quality**

8.3 Verizon Media offers the market the same quality of data, at larger scale (AOL data plus Yahoo data). AOL and Yahoo both maintained a large number of email and content subscribers, resulting in deterministic datasets from which Verizon Media can more accurately match a user's activity across services and devices.

8.4 There has been an ongoing focus on leveraging deterministic data as it offers advertisers confidence in the delivery of their targeted advertising to their desired audiences. The combined (AOL plus Yahoo) consumer level deterministic datasets enable Verizon Media to link users across their multiple devices, offering users a better internet experience with relevant advertising at the correct frequency.

8.5 At the same time, Verizon Media continues to work on improving the quality of its probabilistic datasets, to ensure the statistical likelihood of a match (e.g., that two devices are used by the same user) remains in the high percentages. A probabilistic approach to linking devices looks at signals and patterns from usage of devices to build an inferred link.

#### **Innovation**

8.6 A larger group of data science and engineering expertise now exists. [REDACTED] However, Verizon Media would maintain that new privacy regulation – namely GDPR – and how that has been implemented and interpreted differently across different EU markets has negatively affected innovation. Please see the "Life After

GDPR" presentation attached in **Annex 013**. The resource requirements necessary to ensure compliance with these regulations is significant. Market leaders are uniquely able to absorb these increased requirements without it affecting innovation. Moreover, they can actively set the regulatory agenda, which then advantages them and harms challenger and smaller companies. For challengers like Verizon Media, with more limited engineering resources, the effort involved in complying with new laws diverts resources away from innovative and commercially focused initiatives.

***Privacy, data collection and user engagement***

***Privacy policies***

9. ***Please provide copies of the latest privacy policy for users in the UK for each Verizon Media product identified in your response to question 1, and the previous version that was used before the implementation of the GDPR in May 2018. Please explain the main provisions and changes between these versions and the rationale behind each major change.***

9.1 Please see the privacy policies listed below:

- (a) **Annex 023:** The Yahoo/Oath (EMEA) Limited privacy policy that was used before the implementation of GDPR.
- (b) **Annex 021:** The AOL/Oath UK privacy policy that was used before the implementation of GDPR.
- (c) **Annex 014:** The current Oath (EMEA) Limited privacy policy. This is the combined Yahoo/AOL privacy policy applicable in EMEA after Verizon acquired the Yahoo operating business. This policy also applies to certain Oath (UK) Limited processing activities, as explained at: <https://policies.oath.com/ie/en/oath/privacy/partnercontrollers/index.html>.
- (d) **Annex 016:** The current Oath Enterprise Account privacy policy. Please note this is a new policy since implementation of GDPR and therefore there is no pre-GDPR version.
- (e) **Annex 015:** The current Tumblr privacy policy.
- (f) **Annex 019:** The Tumblr privacy policy that was used before the implementation of GDPR.
- (g) **Annex 018:** The current Oath privacy policy for U.S. services. For U.S.-to-the-world products (i.e., products made available worldwide by Oath Inc.), namely Techcrunch & Engadget, the Oath privacy policy for the U.S. applies.
- (h) **Annex 020:** The Yahoo privacy policy for U.S. services that was used before the implementation of GDPR.
- (i) **Annex 022:** The AOL/Oath privacy policy for U.S. services that was used before the implementation of GDPR.

9.2 The rationale for the last major change to Verizon Media's privacy policies was to:

- (a) update the policies so that they were GDPR compliant ahead of the 25 May 2018 GDPR start date; and

(b) combine separate AOL and Yahoo privacy policies into combined Oath (now Verizon Media) privacy policies.

9.3 The April 2018 customer FAQs attached at **Annex 017** list some of the key aspects of the combined Oath privacy policies.

9.4 The legacy Yahoo EMEA privacy policy was used as the basis for the combined Oath policy, so some of the key changes were to ensure the revised policy addressed the legacy AOL products that it would cover. For GDPR compliance, the key changes were to add Verizon Media's Privacy Dashboard including sections on legal bases and withdrawing consent.

10. **# For each Verizon Media product mentioned in question 1, please explain the following, providing internal documents and any existing data to support your answer:**

- (a) *the proportion of users who access the privacy policy when first using the product;*
- (b) *the proportion of users who access the privacy policy when creating an account;*
- (c) *the proportion of users who access the privacy policy when changes are made to the privacy policy;*
- (d) *the average reading time spent on the privacy policy under each scenario in (a), (b) and (c);*
- (e) *how access rates and average reading times vary across different user groups (e.g. age, socioeconomic status); and*
- (f) *how (a) to (e) have changed over time.*

10.1 Verizon Media does not record the proportion of users who access its privacy policies or average reading time and is therefore unable to provide an answer to this question.

11. **# Please explain how Verizon Media communicates its privacy policy in the following situations. Please provide screenshots to support your answer:**

- (a) *when a user signs up to the product;*
- (b) *on an ongoing basis; and*
- (c) *when there is a change in Verizon Media's privacy policy.*

(a) **when a user signs up to the product**

11.1 Verizon Media offers multiple products and services which either require registration, allow users to subscribe for products (e.g., newsletters), or allow users to register to gain access to certain features (e.g., using third party authentication solutions such as Facebook). Screenshots showing how Verizon Media communicates its privacy policy in these situations are attached in **Annex 025**.

(b) **on an ongoing basis**

11.2 A link to the privacy policy is included:

- (a) on desktop and mobile web, on each webpage; and

- (b) within each of Verizon Media's apps, for example, in the drop down main menu (e.g., in the Yahoo Weather app);
- (c) in "My Settings" at the bottom of the app (e.g., in the HuffPost app); and
- (d) in communications sent to customers in response to member services enquiries.

11.3 Screenshots are attached in **Annex 025**.

**(c) when there is a change in Verizon Media's privacy policy**

11.4 When minor, immaterial changes are made to Verizon Media's privacy policy, Verizon Media does not provide specific user notice. But depending on the nature of the changes, Verizon Media may flag next to the privacy policy link that it is "(Updated)". In addition, there is a "Last Updated" date at the top of the privacy policy. Representative screenshots are attached in **Annex 025**.

11.5 In the event that Verizon Media makes material changes to its privacy policy, Verizon Media notifies users that its privacy policy will be updated. For example, in April 2018 Verizon Media notified all AOL and Yahoo registered users via email that the AOL/Yahoo privacy policies were to be combined into a unified Oath privacy policy. Screenshots of the AOL email and the Yahoo interstitial are attached in **Annex 025**. In addition, Verizon Media publishes customer FAQs, attached as **Annex 024**, which listed some of the key aspects of the privacy policy.

12. **# Please explain how Verizon Media designs its privacy policy for Verizon Media products. Please provide internal documents (including A / B testing) to support your answer:**

- (a) **What are the factors that influence user engagement with Verizon Media's privacy policies? Please explain how Verizon Media takes these factors into consideration when designing and communicating its privacy policies for UK users.**
- (b) **Please explain any major changes to the design and format of the privacy policies made following the implementation of the GDPR in May 2018. Please provide internal documents, design briefs and research to support your answer.**
- (c) **To what extent have these changes affected the number of users, and where relevant, the volume of searches<sup>4</sup>, for each Verizon Media product listed? To what extent do these effects differ between different user groups?**

12.1 Verizon Media designs its privacy policy to be transparent, accurate and in compliance with applicable laws (including the GDPR). The Privacy Centre provides an overview of Verizon Media's data processing practices, with more detailed information available under the sub-headings (e.g., Products, Controls). The Privacy Centre is available at: <https://policies.oath.com/ie/en/oath/privacy/index.html>.

12.2 The Privacy Dashboard, available from the Privacy Centre, provides users with:

- (a) Information regarding the data Verizon Media collects.
- (b) User controls over how that data is used.

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<sup>4</sup> This refers to the total volume of searches by users of Verizon Media's search engine (rather than searches for Verizon Media products).

- 12.3 The Privacy Dashboard is available at: <https://policies.oath.com/ie/en/oath/privacy/dashboard/index.html>.
- 12.4 In designing its privacy policy, Verizon Media has been mindful that the Transparency Guidelines<sup>5</sup> recommend that the first layer of a privacy statement provides data subjects with a *“clear overview of the information available to them on the processing of their personal data and where/how they can find that detailed information”* and that core information should be provided in the first layer, which is listed as *“the details of the purposes of processing, the identity of controller and the existence of the rights of the data subject, together with information on the greatest impact of processing or processing which could surprise the data subject.”*. In line with this recommended approach, the privacy policy lists the core information and contains a clear overview of the information available to data subjects via the related linked information and controls.
- 12.5 As encouraged by the Transparency Guidelines, the information about Verizon Media's data processing is presented succinctly and separately from other information such as the Terms of Service. At just over 7 pages long, the privacy policy is, in Verizon Media's view, a good example of how to balance the requirement to provide salient information against the Article 12 GDPR requirement to be concise. The information is presented efficiently by using clear sub-headings which properly inform a reader of the contents of the privacy policy and additional further information is easily accessible through the links throughout the text of the privacy policy at the relevant word or sub-section. In addition, short paragraphs and bullet points are utilised in order to avoid information fatigue.
- 12.6 Similarly, the Privacy Microsite, available at <https://www.oath.com/my-data/>, which was developed as part of Verizon Media's preparations for the GDPR, provides a synopsis of Verizon Media's data processing activities in an engaging manner to communicate transparently to users of all levels of comprehension. By providing a “lite” version of the information in the privacy policy, the Privacy Microsite is concise and instructive about Verizon Media's data processing activities while also providing timely links to the privacy policy.
- 12.7 The Transparency Guidelines indicate that intelligible information is information which can be understood by an average member of the intended audience. Given the broad audience for such information, the language and writing style employed in the privacy policy and other information sources is easy to understand by an average user of Verizon Media services. Plain language and short sentences are used throughout to enable all members comprising the intended audience to comprehend “in advance what the scope and consequences of the processing entails.”<sup>6</sup>
- 12.8 As discussed with the CMA on 11 July 2019, Verizon Media does not do A/B testing on privacy policy rollouts.
  - (a) **What are the factors that influence user engagement with Verizon Media's privacy policies? Please explain how Verizon Media takes these factors into consideration when designing and communicating its privacy policies for UK users**
- 12.9 Verizon Media does not have data on user engagement with privacy policies that would enable it to answer this question.
- 12.10 (b) **Please explain any major changes to the design and format of the privacy policies made following the implementation of the GDPR in May 2018. Please provide internal documents, design briefs and research to support your answer**

<sup>5</sup> Guidelines on transparency under Regulation 2016/679 issued by the Article 29 Working Party in November 2017, revised on 11 April 2018, and endorsed by the EDPB on 25 May 2018.

<sup>6</sup> Transparency Guidelines, page 7.

12.11 Following the implementation of the GDPR in May 2018, Verizon Media has not made any major changes to the Oath (EMEA) Limited privacy policy, applicable to the products and services offered by Oath (EMEA) Limited in the UK, and accordingly, Verizon Media does not have any responsive documents.

12.12 (c) **To what extent have these changes affected the number of users, and where relevant, the volume of searches<sup>7</sup>, for each Verizon Media product listed? To what extent do these effects differ between different user groups?**

12.13 Verizon Media is not aware of testing or studies conducted regarding how changes to its privacy policies affected user numbers or volume of searches.

13. **# Please provide screenshots of the current sign-up and account deletion flows for each product.<sup>8</sup> Please explain why the current design<sup>9</sup> and format of the sign-up and account deletion flows were chosen. Please provide internal documents (including A / B testing) to support your answer.**

13.1 Verizon Media has provided representative samples of the current sign-up and account deletion flow for Verizon Media products and services in **Annex 026**, and can provide additional detail upon the CMA's request.

13.2 Regarding the sign-up flow, the design and format were chosen to be user friendly and easy to navigate, while presenting any required information and disclosures. Regarding the account deletion flow, users can delete their account by:

- (a) contacting Member Services via the Help Channel at <https://uk.help.yahoo.com/> and request deletion; or
- (b) visiting the account delete page at <https://yahoo.mydashboard.oath.com/delete-my-account/>.

13.3 Please note that users can find additional information on how to delete their account by visiting the Help centre at <https://uk.help.yahoo.com/> and searching for "Delete Account."

13.4 Please also see Verizon Media's response to Question 18 regarding data controls available to users.

*Data collection, use, retention, storage and sharing*

14. **Please explain whether there is any data which is currently collected from users in the UK but isn't used for the operation of Verizon Media's service(s) or to improve Verizon Media's service(s). If so, please explain why this data is currently collected.**

14.1 Verizon Media is not aware of data that is collected from users and not used for the operation of Verizon Media's services or to improve Verizon Media's services.

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<sup>7</sup> This refers to the total volume of searches by users of Verizon Media's search engine (rather than searches for Verizon Media products)

<sup>8</sup> Where relevant, please provide screenshots for both the mobile and desktop sign-up flow.

<sup>9</sup> This can include, but is not limited to, the use of colour, word size, space and dominance.

15. ***Please explain Verizon Media's data retention policy for each product mentioned in question 1.***

(a) ***Please explain the costs of storing data, and the extent to which the usefulness of data changes with its age.***

(b) ***Do the retention / deletion policies differ for different categories of data for users in the UK? If so, please explain how and why they differ.***

(a) ***Please explain the costs of storing data, and the extent to which the usefulness of data changes with its age***

15.1 Verizon Media stores data in a wide range of infrastructure, including owned and operated data centres and cloud provider infrastructure. As an example, Verizon Media's data storage costs when using Amazon Web Services S3 (Simple Storage Service) to store [REDACTED] [REDACTED] The cost of storage varies depending on the type of infrastructure used, the software being used, the format the data is stored in, and how frequently it needs to be accessed. It is therefore difficult to provide a specific answer that answers the question of the cost of storing data without narrowing the scope of the type of data and the purpose for which it is being used.

15.2 The value of any given piece of data at any given point in time is determined by a combination of the nature of data in question and the purpose for which it is being used. Generally speaking, declared data (data which is provided to us directly by the customer, often as part of their registration for a product) will have a longer shelf life than observed or inferred data. Declared data is typically useful for as long as the customer it relates to has an active relationship with Verizon Media. Examples of such data include contact details (e.g., phone number, address) which can be used to validate the identity of the customer and are used to secure their account. If the relationship with the customer comes to an end, either at the request of the customer or after a period of inactivity, this information is no longer of value and will eventually be erased in the interests of data minimisation.

15.3 Observed or inferred data, where it relates directly to an identifiable customer, may have a relatively short shelf life. For example, where it is observed that a customer has an interest in a certain subject, for example golf holidays, this information is valuable for the purposes of targeting personalised advertising in the immediate term. However, people's interests change over time, especially where that interest relates to a potential purchase of a product or service, resulting in this data becoming increasingly less relevant, in a short period of time for the purpose of targeting personalised advertising. However it may still be relevant for other purposes such as understanding general trends.

(b) ***Do the retention / deletion policies differ for different categories of data for users in the UK? If so, please explain how and why they differ***

15.4 Retention of personal data is based upon the purpose for which it was collected. For example, data collected for the purposes of security, fraud prevention and for operational reasons will be retained for a period of time commensurate with the need to perform those purposes. Similarly, data collected as part of the registration process and which is required for the purpose of providing to the customer the product or service which they have requested will be retained for as long as that relationship with the customer remains in place. Verizon Media's retention practices are described in its privacy policy in the section titled "Information security and data retention."

15.5 In addition to deletion carried out in accordance with Verizon Media's retention policies, deletion can also occur in response to a request from the customer for erasure, a right established by the GDPR.

- 15.6 UK customers have the right to request the erasure of personal data relating to them and Verizon Media provides a mechanism by which customers can effectuate this right. In response to a request for erasure, personal data relating to the requester will be erased with the exception of certain categories of data which are required for security, fraud detection, for operational reasons, financial record keeping or where there is some other legal obligation for Verizon Media to retain that data. These requirements apply to the UK while the UK is a member of the EU, and for as long as the UK data protection legislation continues to be consistent with the GDPR if and when the UK leaves the EU.
- 15.7 Verizon Media's approach is to have a global Verizon Media retention policy, subject to local legal requirements.
16. *Outside of targeting and serving of digital advertising, for each product mentioned in question 1, please explain what data<sup>10</sup> for users in the UK is shared (i) between Verizon Media services and products and (ii) with third parties, and for what purpose.*

**(i) Data shared between Verizon Media services**

- 16.1 Our analytics tools use a variety of data points and technology across Verizon Media properties, including but not limited to IP address, web beacons, software development kits (SDKs), cookies and similar technologies to recognise, associate and collect data about visitors to Verizon Media's and its customers' sites, apps, products, brands and services. This data is sent to Verizon Media by users' devices. The data collected commonly includes information such as cookies and/or device identifiers, IP address, time spent, user interactions, links clicked, location, apps on the device or advertisements viewed. This data is collected by Verizon Media Analytics (described at: <https://policies.oath.com/ie/en/oath/privacy/topics/analytics/index.html>) and other tools so that Verizon Media can carry out analytics and report statistical information internally and to publishers, app developers and advertisers, and recognise unique users.
- 16.2 Verizon Media collects this information on its own brands, websites, apps, advertising services, products, services or technologies and on behalf of its customers, such as its advertisers and publishers, so that they can assess the effectiveness of their services. Certain customers may also provide Verizon Media with information such as an email address that, on its own, could reasonably identify a customer to incorporate into analytics reports produced exclusively for them.
- 16.3 Verizon Media may also use the data collected through Verizon Media Analytics and other tools in order to improve its services, provide content of interest to users, and for the purposes disclosed in the Verizon Media Privacy Policy. Verizon Media may use cookies and similar technologies to associate users, devices and accounts with each other or with those in a similar location, such as in a household.
- 16.4 Data Verizon Media receives may also be shared between services for purposes such as detecting and tackling security issues and fraud.

**(ii) Data shared with third parties**

- 16.5 Verizon Media understands that advertising intermediation is outside the scope of this question so Verizon Media has not included information about its advertising technology partners in this response.
- 16.6 It is very difficult to answer this on a property-by-property basis, but at a high level, Verizon Media's data could potentially be shared with third party service providers that act as its data "processors" (as defined by GDPR). For example, Verizon Media uses third party cloud hosting services, and all of its user data could be stored on those cloud services. Verizon Media also

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<sup>10</sup> For example, data generated from user interaction with content.

engages service providers to perform services such as transaction fulfilment, payment processing, fraud prevention and other services.

16.7 In addition, Verizon Media permits certain third party companies to collect information about its users' devices, the websites they visit, location information, and other information. In addition, Verizon Media may share information, including pseudonymous demographic information, with companies for:

- (a) service improvements,
- (b) research and analysis,
- (c) to provide personalized advertising,
- (d) to help them provide more innovative experiences and content and;
- (e) to help Verizon Media communicate with users about offers from Verizon Media and its marketing partners.

*Analytics partners*

16.8 Verizon Media contracts with companies that provide services to Verizon Media to determine whether users who saw or clicked on an ad or content later bought the item displayed in the ad (or took some other action the advertiser wanted them to take). To do this, Verizon Media permits these companies to collect certain information, for example about the content or ads users view, how long they spend on different pages, how they arrived on a particular page (e.g., through a search query, link from another page, or a bookmark), and how they respond to the ads Verizon Media shows them. Verizon Media may also share portions of its log file data, including IP address, with these partners for analytics purposes. In the event IP addresses are shared, this information may be used to estimate general location and other technographics such as connection speed, whether users have visited a Verizon Media service in a shared location, and the type of device used to visit Verizon Media services. These partners may provide auditing, research and reporting for Verizon Media and its advertisers.

*Social Buttons, Applications, and Widgets*

16.9 Verizon Media may implement an application or "widget" from a third party on some of its sites and apps that allows interaction or content sharing by Verizon Media users. These widgets are visible to users on the page visited. The network providing the widget may offer controls for users to manage the widget's appearance and functionality. Users' interactions with widgets typically allow the third party to collect some information about users, including IP address, page header information, and browser information. In some cases, the third party may recognise users through its widgets even when users do not interact with the widget but visit a web page or use an app with the widget.

*Content providers*

16.10 Verizon Media partners with various content providers. These content providers may be in the form of services, for instance Verizon Media may partner with one content provider providing maps and a different partner providing news. As users' browsers, apps or devices must request the content from the content provider's servers, these providers can collect information, including IP address, page header information, browser information and other information just as if users had visited their website or used their app directly.

*Video content providers*

16.11 Verizon Media partners with some video content providers to deliver engaging video content. These providers can collect users' information, including IP address, page header information, browser information, flash player version, internet speed and the portion of the video watched.

*Games developers*

16.12 Verizon Media Games hosts games made by sponsors and developers to bring users interesting and fun games. Some of these games may have additional terms and conditions and privacy policies associated with them. As users' browsers, apps or devices must request the content from the content provider's servers, these providers can collect user information, including IP address, page header information, browser information, flash player version and Internet speed. In addition, games developers may record game scores, entered game name, user settings or other gameplay actions that may be governed by the additional terms of service for the game.

*Search partners*

16.13 As explained in response to Question 4, Verizon Media partners with Microsoft for Verizon Media's algorithmic search results and search advertising results.

*Other partnerships*

16.14 Verizon Media partners with companies who may offer products or services to users based on the content they view or other criteria. These partners may be in the form of the "Get the look" bar on celebrity pictures or a sidebar with topical products. As a browser, app or device must request the content from the partner's servers, these providers can collect users' information, including IP address, page header information and browser information.

16.15 Verizon Media may also disclose information about its users to investigate, prevent, or take action in connection with

- (a) valid legal processes and legal requests;
- (b) enforcement of Verizon Media's Terms of Service;
- (c) claims that any content violates the rights of third parties;
- (d) protecting the rights, property or personal safety of Verizon Media, its users or the public;
- (e) establishing or exercising Verizon Media's legal rights or defending against legal claims; or
- (f) as otherwise required by law.

16.16 Additional details about third parties is available at:  
<https://policies.oath.com/us/en/oath/privacy/topics/thirdparties/index.html>

17. **# explain Verizon Media's policies regarding the sharing of user data with third parties. Do these policies differ for different categories of user data and across third parties in the UK? If so, please explain how and why they differ. Please support your answer by providing internal documents.**

17.1 This question has largely been answered in Verizon Media's response to Question 16.

- 17.2 For additional context, Verizon Media is a publisher and advertising platform that operates on both the buy and sell side. However, even with Verizon Media's own in-house technology, it is essential that Verizon Media works with a wide variety of third parties in order to be able to effectively service its clients and maximise the value of inventory on Verizon Media's owned and operated services. It would not be possible for us to operate otherwise. Some of these relationships are necessitated by the services Verizon Media's customers expect, or even demand, that Verizon Media cannot fulfil without third party vendors, whilst others are stipulated by the customers (e.g., customers may require that Verizon Media uses a specific vendor for certain services, otherwise they will not spend with Verizon Media).
- 17.3 Verizon Media understands that the CMA may ask the same question of Verizon Media's advertising intermediation business. Verizon Media will respond to this question in the forthcoming RFI on this matter.

*Data and Privacy consumer controls*

18. *# Please explain what settings and controls Verizon Media provides for consumers in the UK to control to what extent and how data is: a) collected; b) retained and deleted; c) used; d) externally shared and; e) shared within Verizon Media. Please provide internal documents to support your answers.*
  - (a) *Please explain why these settings and controls were introduced.*
  - (b) *Please explain what the default settings and controls are for users in the UK, and the rationale for the default.*
  - (c) *When Verizon Media updates its privacy policies, to what degree are the users' settings reset to the default position or are the users' preferences retained?*
  - (d) *# Please explain why the current design and format for the available settings and controls was chosen, providing internal documents to support your answer.*
  - (e) *Please explain how settings and controls are communicated to users in the UK. As part of your answer, please provide any relevant screenshots.*
  - (f) *Are there differences for users logged into a Verizon Media account and not logged into a Verizon Media account? If so, please explain the reasons behind this.*
  - (g) *Please describe Verizon Media's plans for development of data and privacy settings and controls over the next three years?*
- 18.1 Verizon Media provides information regarding how and when it uses data at its Privacy Centre at <https://policies.oath.com/ie/en/oath/privacy/index.html> and at its Privacy Microsite <https://www.oath.com/my-data/>. Verizon Media has developed controls for users to manage their data and centralised them for user convenience through its Privacy Dashboard, available at: <https://policies.oath.com/ie/en/oath/privacy/dashboard/index.html>. Verizon Media built a global Privacy Dashboard to give users control over the personal data collected and used across Verizon Media network of brands, services and systems. From the Privacy Controls in the Privacy Dashboard, users can access their information, correct their information, download their data from Verizon Media products and services, and review and change a multitude of privacy settings.
- 18.2 Below is a list of available Privacy Controls. Screenshots of an unregistered user's and a registered user's Privacy Dashboard, which show the Privacy Controls, are attached at Annex 029 (see part iii):

- (a) General consent: Manage general consent for data use.
- (b) Communications analysis: Get more relevant ads based on the users' communications (this control is only for registered users).
- (c) Audience matching: Receive more relevant offers from companies the users' use.
- (d) Marketing preferences: Manage marketing preferences.
- (e) Personalised advertising on Verizon Media products: Get ads that match users' interests.
- (f) Search history: Get more relevant experiences based on users' searches.
- (g) Device linking: Sync activity across devices.
- (h) Partners: Get personalized ads from Verizon Media partners.
- (i) Precise location: Get personalised experiences based on location.
- (j) Oath across the web: Get relevant experiences when users' visit partner sites.
- (k) Personalised content: Get articles that are more relevant.

18.3 Verizon Media has mechanisms in place for users to delete their information. Users may request closure of their applicable Verizon Media account. Users can also delete their data where Verizon Media products or services offer a deletion function, such as deleting an email from their Yahoo or AOL email account. Consumers who are not Verizon Media users can use opt-out tools offered through the European Digital Advertising Alliance (<http://www.youronlinechoices.com/uk/>) to opt out of having Verizon Media cookies placed on their browsers and devices. When a consumer uses these opt out tools, Verizon Media will delete any cookies that have been placed on a consumer's browser or device for the purpose of delivering interest-based ads.

18.4 In some instances, Verizon Media retains data for as long as reasonably necessary for business, accounting, tax or legal purposes (e.g., to fulfil a contract for a paid service for the remainder of the subscription period, comply with a legal obligation, or to exercise or defend a legal claim).

(a) **Please explain why these settings and controls were introduced**

18.5 Before the integration of these businesses under Verizon Media, AOL and Yahoo both offered user controls as part of their offerings. As part of the integration, many of the underlying technology platforms were combined and it became necessary to consolidate the controls offered to users.

18.6 The objectives of the introduction of the new combined controls were:

- (a) to provide a uniform set of controls to all users;
- (b) to provide a high level of transparency about the processing of personal data being performed by the new consolidated business;
- (c) to prepare for the introduction of GDPR; and
- (d) to provide a central place where these settings could be managed, namely the Privacy Dashboard.

**(b) Please explain what the default settings and controls are for users in the UK, and the rationale for the default**

- 18.7 All platforms are configured such that the default state is that Verizon Media does not have permission, unless there is an affirmative signal indicating otherwise. This means that, where the control is seeking a consent from the user, the control is treated as being not consented if the user has not indicated otherwise. And where the control is an opt-out, the control is treated as being opted-out unless and until a legal basis is satisfied.
- 18.8 All users are presented with an overview of how Verizon Media uses data and asked to make choices about how their personal data is processed prior to their first visit to a Verizon Media product or service. As part of the initial visit, the user is given the chance to accept a standard configuration for the controls, or to tailor those controls to their liking. They are also provided with information about how they can change these settings at any time via their Privacy Dashboard.
- 18.9 Part of the rationale for Verizon Media's settings relates to the legal bases upon which Verizon Media rely to process personal data, as described in the Legal Bases page, available at: <https://policies.oath.com/ie/en/oath/privacy/legalbases/index.html>. As noted above, Verizon Media will not process any personal data by default. It is only when it has established a legal basis (whether that is consent, legitimate interests or performance of a contract) that it will do so.

**(c) When Verizon Media updates its privacy policies, to what degree are the users' settings reset to the default position or are the users' preferences retained?**

- 18.10 In May 2018 Verizon Media introduced a new privacy policy, a set of user controls, and a user flow which were presented to all users (existing and new) who accessed any Verizon Media product or service. This was to support the integration of Yahoo and AOL to create Oath (now Verizon Media) and to comply with GDPR. The controls were new and represented a significant change from the controls users previously had. As such, all users were required to make choices or accept the defaults in order to continue to use the product or services. Verizon Media has not materially updated its Oath (EMEA) Limited privacy policy or controls since May 2018.
- 18.11 If Verizon Media materially updates its privacy policy in the future, it will endeavour to carry forward previously chosen privacy settings, where it is appropriate to do so. But in certain circumstances Verizon Media may need to modify settings. For example, Verizon Media is currently reviewing how to implement version 2 of the IAB Transparency and Consent Framework. The choices available to users in TCF version 1 have materially changed and so Verizon Media will need to ask users to make new choices for version 2 (and their previous choices will have no effect since version 1 and 2 of TCF are not compatible).

**(d) Please explain why the current design and format for the available settings and controls was chosen, providing internal documents to support your answer**

- 18.12 The GDPR required all companies, including Verizon Media, to develop enhanced methods to communicate with Verizon Media's users regarding how Verizon Media processes their personal data. Verizon Media did not have a pre-existing template to develop this sort of communication with users, and it was unclear whether traditional "cookie banners" would be sufficient. It therefore created a user flow to communicate with Verizon Media users in connection with the May 2018 rollout of the new privacy policy. The user flow was based on certain principles:
  - (a) Verizon Media used an interstitial instead of a cookie banner because it had to develop a method to block non-strictly necessary cookies from deploying before a user consented.

- (b) Because of Yahoo and AOL's recent combination of operations under Oath (now Verizon Media), Verizon Media had to explain what Oath was to its users for the first time.
- (c) Verizon Media had to communicate its third-party ad tech partners to Verizon Media's users, as well as the purposes for which these partners processed data. It did so by leveraging the newly-created IAB Transparency and Consent Framework, which Verizon Media played a material role in developing as a publisher and an ad tech vendor.
- (d) Verizon Media focused its initial efforts on user transparency and comprehension. As the research shows (see below), users were surprised by the interstitial relative to previous banners, but understood the copy that Verizon Media set before them.

18.13 The user flow experience was tested in-person, in-country, qualitatively with a live audience. This in-person testing took the form of a "user journey" through the user flow followed by discussion of what the user saw. The slides attached in **Annex 028** and associated commentary describe the research findings.

18.14 Verizon Media has improved the user journey since 25 May 2018 to enhance transparency, and to provide new information when necessary, such as when different ad tech vendors leverage different alternatives and legal bases to interact with Verizon Media's users.

(e) **Please explain how settings and controls are communicated to users in the UK. As part of your answer, please provide any relevant screenshots**

18.15 Verizon Media communicates its settings and controls to users in the UK in several places, as set forth below and as shown in the attached screenshots and associated commentary in **Annex 029**:

- (a) The user flow presented to users when they visit a Verizon Media product or service for the first time after May 25th 2018;
- (b) The Privacy Centre/Privacy Policy which describe the settings and the controls and links to further resources should the user wish to learn more;
- (c) The Privacy Dashboard, which contains the controls and details about the effect of those controls;
- (d) The Help site available at: <https://uk.help.yahoo.com> and <https://help.aol.co.uk/>;
- (e) The Privacy Microsite available at: <https://www.oath.com/my-data/#meetooath>;
- (f) By Member Services/Customer Care in response to an enquiry relating to the controls; and
- (g) By the Data Protection Officer in response to an enquiry or complaint from the user.

(f) **Are there differences for users logged into a Verizon Media account and not logged into a Verizon Media account? If so, please explain the reasons behind this**

18.16 Yes. There are differences for users logged into, and not logged into, a Verizon Media account. The primary differences are in Verizon Media's user flow and with Verizon Media's Privacy Dashboard. Please see the screenshots and associated commentary in **Annex 029**, referenced in subpart (e) above, regarding the difference between Verizon Media's logged in and logged out Privacy Dashboard experiences.

18.17 For Verizon Media's user flow, registered users are offered an additional control relating to how Verizon Media processes their communications (i.e., Mail) data. The control is referred to as "Get more personalisation from your inbox" (and "Communications Analysis" in the Privacy Dashboard) and is an opt-in control, as shown in **Figure 18**.

**Figure 18 opt-in example:**



18.18 With user consent, Verizon Media will analyse a user's communications, like emails, to tailor the ads and content that it provides to them on Verizon Media products and other sites where Verizon Media provides the advertising. If the user does not consent to such personalisation, Verizon Media will still analyse the user's communications to protect them against email phishing and spam and to improve the way that Verizon Media organises the user's inbox, but will no longer analyse the data to tailor the ads and content. The user can change this setting at any time via their Privacy Dashboard. The user can also customise this setting in the user flow shown to users upon their first visit to a Verizon Media product or service after the 25th of May 2018, by clicking "Manage Options."

**(g) Please describe Verizon Media's plans for development of data and privacy settings and controls over the next three years?**

18.19 Verizon Media continually develops its products and services, including the privacy policy and the controls provided to users. The reasons for this include:

- (a) to improve the user experience, improve transparency and make it easier for Verizon Media users to exercise their rights;
- (b) to incorporate feedback from Verizon Media users;

- (c) in response to guidance issued by data protection supervisory authorities;
- (d) in response to instructions from regulators;
- (e) in response to new regulations; and
- (f) to facilitate changes in the operation of the business.

18.20 Current areas of focus include:

- (a) the Privacy Centre and privacy policy;
- (b) the user flow shown to Verizon Media users when they first access Verizon Media products;
- (c) the Privacy Dashboard where Verizon Media users can manage the controls Verizon Media provides to them;
- (d) the support Verizon Media provides to its users through Verizon Media Member Services function; and
- (e) the help content Verizon Media provides to its users.

18.21 Subject to internal approval, Verizon Media is currently exploring changes to:

- (a) an enhanced user flow for Verizon Media users;
- (b) enhancements to Verizon Media Privacy Centre, Privacy Dashboard, and privacy policy to improve clarity;
- (c) combining Verizon Media Privacy Microsite (<https://www.oath.com/my-data/#meetooath>) with Verizon Media's Privacy Centre to create a single destination for users to find out how Verizon Media processes their personal data, understand their rights and learn about the controls it provides to them.

19. ***# Please explain the main factors that influence user engagement with these data and privacy settings and controls. Please provide internal documents (including A / B testing) to support your answer.***

19.1 Please see the research findings attached as **Annex 028**, referenced in Verizon Media's response to Question 18(d). Due to a turnover in personnel, no additional relevant documents were uncovered on a reasonable search.

20. **#For each setting and control mentioned in question 18, please explain the following, providing internal documents and any existing data to support your answer:**

- (a) *how often this setting or control is used (e.g. changed) at registration;*
- (b) *how often this setting or control is used (e.g. changed) on an on-going basis;*
- (c) *whether the frequency of use change the longer a user is with the social media platform;*
- (d) *the extent to which (a) - (c) vary across different user groups (e.g. age, socioeconomic status);*
- (e) *if any of (a)-(d) is different for users logged into their account and users not logged into their account. If there is a difference, please explain why this may be.*

(a) **how often this setting or control is used (e.g. changed) at registration**

20.1 At registration, users have the option of: (1) agreeing to the default settings for the controls identified in response to Question 18 by clicking an “ok” button, or (2) clicking a “more options” button that gives them the opportunity to change the default settings for the “Communications Analysis” and “Partners” controls. Approximately 5% of EMEA users chose the “more options” button at registration. Of that 5% of EMEA users, approximately 10% consent to Communications Analysis, and 10% manage the Partners control by making further choices about how partners process their data. The remaining nine controls can be managed by users after registration via the Privacy Dashboard.

(b) **how often this setting or control is used (e.g. changed) on an on-going basis**

20.2 Users can manage all of the 11 controls (or 10 controls for non-registered users) identified in response to Question 18 via the Privacy Dashboard. A very small percentage of users globally visit the Privacy Dashboard. Listed below are the percentages of those users who visited the Privacy Dashboard and exercised a specific control:

- (a) General consent: 2%
- (b) Communications analysis: 6%
- (c) Audience matching: 5%
- (d) Marketing preferences: data not readily available
- (e) Personalised marketing on Verizon Media products: 10%
- (f) Search history: 6%
- (g) Device linking: 13%
- (h) Partners: 7%
- (i) Precise location: 44%
- (j) Oath across the web: 3%
- (k) Personalised content: 4%

- (c) whether the frequency of use change the longer a user is with the social media platform
- 20.3 Verizon Media does not collect or analyse data regarding users' management of privacy controls based on how long they have been a registered user or engaged with Verizon Media's products and services.
  - (d) the extent to which (a) - (c) vary across different user groups (e.g. age, socioeconomic status)
- 20.4 Verizon Media does not collect or analyse data regarding users' management of privacy controls based on users' age, gender or other similar demographics.
  - (e) if any of (a)-(d) is different for users logged into their account and users not logged into their account. If there is a difference, please explain why this may be
- 20.5 The information provided in subsections (a) through (d) is generally consistent regardless of whether users are logged in or not, except that of the relatively small percentage of users who visited the Privacy Dashboard, approximately 40% of logged in users opted out of the "Precise Location" control, and approximately 45% of users who were not logged in opted out of the "Search History" control.

***Competition in user services***

*Competition*

- 21. ***Please explain and provide evidence for the extent of competition that Verizon Media faces in online search services.***
  - (a) *please explain what the key dimensions of quality are that Verizon Media competes over and how they are measured;*
  - (b) *please list and rank who Verizon Media regards as its main competitors, providing reasons for the ranking and describing Verizon Media's relative strengths and weaknesses and the key parameters over which it competes with these firms.*
  - (c) *# to what extent has Verizon Media adapted in response to these competitors? Please provide any internal documents over the last two years which refer to Verizon Media's competitive strategy for these services; and*
  - (d) *please describe Verizon Media's plans to meet changes in competitive dynamics in the next three years.*
- (a) ***Please explain what the key dimensions of quality are that Verizon Media competes over and how they are measured***
- 21.1 As explained in response to Question 4, Verizon Media's algorithmic search results and search advertising are provided by Microsoft, while Verizon Media controls the end user experience. Verizon Media's search services compete on the following key dimensions of quality: relevancy of results (do the results respond accurately and completely to a user's search intent); speed of response (how long does it take the search results to appear); additional features (e.g., knowledge cards, specific answers, maps/directions, restaurant menus, flight schedules, sports scores, etc.); geographic coverage (both physical coverage and languages offered); supported

devices and platforms (smart phones, tablets, desktop, etc.); and size of audience (market share).

**(b) Please list and rank who Verizon Media regards as its main competitors, providing reasons for the ranking and describing Verizon Media's relative strengths and weaknesses and the key parameters over which it competes with these firms**

21.2 With respect to the market for search services (including both search engines and providers of search offerings), Verizon Media views its main competitors to be Google and Microsoft by virtue of their market share. Verizon Media's relative weaknesses [REDACTED]

[REDACTED]  
In addition, Verizon Media does not offer a search engine (as it understands that term), and does not own or operate its own desktop or mobile operating system or web browser, and is therefore not empowered to set itself as the default search engine for any of the aforementioned platforms in contrast to others. Verizon Media's relative strengths include its history of innovation (e.g., knowledge cards, specific answers as direct display modules on the search results page, etc.), and commitment to both its users and affiliate partners. In addition, through its other properties, Verizon Media has content in key areas such as Sports, Finance, News, and Entertainment that can be used in Search to build better knowledge cards and specific answers. These properties also bring more users into the Verizon Media ecosystem.

21.3 Verizon Media generally considers key parameters of competition to include relevance of search results, additional features, audience size, and direct display modules. Verizon Media also competes for distribution – e.g., Verizon Media has partners that distribute its search services through their websites, which is a significant driver of search volume. Note that Verizon Media does not consider itself to compete with Microsoft with respect to the things that Microsoft provides Verizon Media under the parties' agreement and that it controls, as described in response to Question 4.

**(c) To what extent has Verizon Media adapted in response to these competitors? Please provide any internal documents over the last two years which refer to Verizon Media's competitive strategy for these services**

21.4 Verizon Media's competitive strategy for search [REDACTED]

21.5 Attached as **Annexes 030-035** are internal strategy documents and relevant extracts from operational spreadsheets listing quarterly business objectives and strategies relating to search, some of which may not apply to the UK market specifically.

**(d) Please describe Verizon Media's plans to meet changes in competitive dynamics in the next three years.**

21.6 Verizon Media plans to meet changes in competitive dynamics by continuing the strategies outlined above, including [REDACTED]

[REDACTED] This in turn helps to support Microsoft's market position as the second global player of scale and a competitive alternative for both users and advertisers to Google.

22. *Please describe and provide evidence of the extent of competition faced by Tumblr, answering a)-d) in question 21.*

(a) **Please explain what the key dimensions of quality are that Verizon Media competes over and how they are measured**

22.1 The key dimensions of quality that Tumblr competes over are total users and user activity. Tumblr measures this by looking at DAUs (daily active users) and MAUs (monthly active users). More detail on competition for quality is set out in part (b) to this question.

(b) **Please list and rank who Verizon Media regards as its main competitors, providing reasons for the ranking and describing Verizon Media's relative strengths and weaknesses and the key parameters over which it competes with these firms;**

22.2 Tumblr's main competitors are (in order): Instagram, Reddit, Pinterest, and Snap.

22.3 With respect to Instagram, Tumblr competes for compelling and engaging visual posts, the creator community, and user base. It is primarily a platform for creators, in contrast to Instagram's model which focuses on consumption. Instagram's strengths are access to Facebook's data and traffic, a very large marketing budget and marketing activity, which drives users to Instagram, and effective content monitoring tools and team. Tumblr's strengths are that because it does not strive for sheer volume of views for each microblog and post published, and does not publish follower count, Tumblr's user engagement tends to be deeper, and less superficial, as demonstrated by its receipt of multiple Webby Awards for user engagement. Instagram is based on more superficial, high volume user activity which promotes high-frequency engagement (e.g., a focus on the number of total likes and followers). Another strength of Tumblr's is that because users are not required to use their real names users have expressed that they can be more honest and authentic, whereas they believe Instagram is more about impressing their network of friends.

22.4 With respect to Reddit, Tumblr competes for long tail, interest based users, and compelling visual posts especially on Reddit's mobile app. Reddit's strengths are: (i) its effective search technology, design and usability make finding what users are interested in easy; and (ii) democratization of the experience through up vote and down vote by users of other users' posts. However, this voting often leads to attacks by users on others using group mentality/pressure. Tumblr's strengths are that not having an algorithm based on user voting, and an absence of voting by users of other's posts, creates a user experience that is more authentic and honest.

22.5 With respect to Pinterest, Tumblr competes for compelling and engaging visual posts and interest based communities. Pinterest's strengths are its huge scale, it is nearly all visual, it is easy to find what one is interested in, and its recommendation engine works well. Tumblr's relative strengths are that outside of a few key communities (e.g., home, wedding, cooking), Pinterest communities lack diversity. Tumblr has many more different types of communities that use its site.

22.6 With respect to Snap, Tumblr competes for visual posts and interest-based, creative communities, and Tumblr has the same demographic as Snap (i.e., younger millennials and Gen Z). Snap's strengths are that its mobile app is easy to use, Snap's tone and voice is fun, and Snap has easy to use creator tools. Tumblr's relative strengths are that Tumblr has more varied and diverse interests and more and different communities than Snap. Also, the nature of Snap's platform is that posts are viewed in real time and time limited/ephemeral, whereas Tumblr has deeper collections of posts that span longer periods of time and endure on the platform.

(c) **To what extent has Verizon Media adapted in response to these competitors? Please provide any internal documents over the last two years which refer to Verizon Media's competitive strategy for these services**

22.7

[REDACTED]

Attached as **Annexes 036-38** are Tumblr's 2017 Competitive Positioning document, a 2019 Competitive Analysis, and 2016 Growth Triggers Strategy document. Please note that on August 12, 2019, Verizon Media and Automatic Inc. announced that the companies have entered into a definitive agreement under which Automatic plans to acquire Tumblr.

**(d) Please describe Verizon Media's plans to meet changes in competitive dynamics in the next three years.**

22.8 Verizon Media does not plan to meet changes in competitive dynamics for Tumblr in the future due to the planned sale mentioned above.

23. ***Do you consider that Verizon Media has a stronger competitive position in any other countries outside the UK? If so, what explains its relative success in these countries? Are there any specific barriers to Verizon Media's growth in the UK, or does the relative performance largely reflect its commercial strategy to focus in particular national markets?***

23.1 Yes. Verizon Media considers that its services, as described in response to Question 1, to have a stronger competitive position in the U.S. than the UK. As explained below, the regulatory environment in the UK is in flux, and both unforeseeable and subject to short-notice changes of direction. The impact of GDPR and economic uncertainty surrounding Brexit have softened the market for digital advertising.

[REDACTED]

23.2 As noted in Verizon Media's response to the CMA's Statement of Scope, there are a vast number of inter-connected digital policy initiatives in play in the UK originating from different government departments and regulators, and come at a time of unprecedented political and economic uncertainty. Nothing harms business confidence more than conflicting or ambiguous overlapping regulation. With respect to GDPR, the imposition of this prescriptive framework on an existing, dynamic business model has been fraught with issues since it came into effect and has unevenly impacted the competitive landscape. Verizon Media agrees with the conclusion in the Furman report – which considered the impact of GDPR on data markets and competition – that “concerns over the application of the GDPR in digital markets are sufficiently widespread to merit further investigation. A retrospective assessment of the impact of the GDPR would be a valuable exercise to ensure the regulations are operating as intended and are not unduly impacting competition.” (See The Digital Expert Competition Panel report, Paras 1.126 and 4.42.) Similarly, a 2018 report on investor attitudes in the UK regarding digital regulation found that “recent signals from government that they’re increasingly prepared to intervene through regulation risks damaging long-term growth.” (See The Impact of Regulation on the Tech Sector, available at <http://alliedforstartups.org/wp-content/uploads/sites/3/2018/12/The-Impact-of-Regulation-on-the-Tech-Sector.pdf>.)

23.3

[REDACTED]

23.4 Verizon Media also considers that it has a stronger competitive position in Taiwan, where it has a significantly greater market share than in the UK. The market in Taiwan is more dynamic and there is less of an establishment of the players which dominate the UK and European markets.

24. *Is Verizon Media (or has it sought to become) a default search engine for any OEMs, operating systems, web browsers, or third-party search boxes on websites? Please explain your strategy in this area.*

24.1 As Verizon Media is not an OEM, does not offer a search engine (as it understands that term), and does not own or operate its own desktop or mobile operating system or web browser, Verizon Media is not empowered to set itself as the default search engine for any of the aforementioned platforms.

24.2 However, through its affiliate relationships, as described below, Verizon Media has become the default search provider for certain browsers, and either are or have been for a few mobile OEMs. Verizon Media operates a search affiliate network, pursuant to which Verizon Media distributes its search offerings. These affiliates operate websites and distribute various forms of software (e.g., browsers, browser extensions, mobile applications, etc.), and they decide where, when, and how to incorporate Verizon Media's search offerings. [REDACTED]

25. *Does Verizon Media offer users any financial incentives to use its online search services? If so, please describe them.*

25.1 Verizon Media does not offer any financial incentives to users for using its search services. As noted previously, Verizon Media operates search affiliate networks. Some of those affiliates reward users for their ongoing use of the Verizon Media search offerings incorporated into, or bundled with, such affiliates' offerings. These reward programs do not involve cash; rather, they offer users gift cards, points (e.g., in-game points that enable the player of a particular mobile game to advance to the next game level), prizes or contest entries. Verizon Media is not involved in these offers..

*User behaviour*

26. *Please explain and provide examples of any research Verizon Media has carried out into the behaviour of its users of a) online search services and b) Tumblr on the following topics since the formation of Verizon Media.*

(a) *what users value or want about the services;*

(b) *what users see as the advantages and disadvantages of rival services;*

(c) *the drivers of user choice between Verizon Media services and rival services, including how browser or other defaults affect user choice;*

(d) *the extent to which users 'multi-home' across rival services;*

(e) *the amount of time users spend on Verizon Media services and rival services and the factors that may drive 'switching' in the amount of time spent;*

(f) *the impact of Verizon Media's brands on user behaviour.*

(a) **what users value or want about the services**

26.1 With respect to Verizon Media's search services, the majority of research regarding user behaviour is based on U.S. traffic patterns, but Verizon Media believes the findings are

representative of users across geographic markets. Below are examples of research relevant to what users value or want:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(e) [REDACTED]

26.2 With respect to Tumblr, Verizon Media does not have research since the formation of Verizon Media on this topic or the topics in subparts (b)-(f), below.

**(b) What users see as the advantages and disadvantages of rival services**

26.3 Please see the descriptions of [REDACTED] above.

**(c) The drivers of user choice between Verizon Media services and rival services, including how browser or other defaults affect user choice**

26.4 Please see the descriptions of [REDACTED] above. In addition, based on market information and Verizon Media's experience with its search affiliates, Verizon Media has observed a strong correlation between default settings in browser/OS and user search behaviour.

**(d) The extent to which users 'multi-home' across rival services.**

26.5 While Verizon Media does not ordinarily conduct research specifically on this topic, it has observed from market behaviour that many users will simply conduct searches from the search service that is currently accessible/available – i.e., many users of the Yahoo.com homepage who conduct searches in the search bar on that page do not have Yahoo Search set as their default search.

**(e) the amount of time users spend on Verizon Media services and rival services and the factors that may drive 'switching' in the amount of time spent**

26.6 Verizon Media is not aware of any research conducted by Verizon Media specifically on this topic. The [REDACTED] described above may provide general insights. In addition, Verizon Media distributes extensions for certain web browsers (for example, an extension that opens new tabs in the browser to a page pre-set for Yahoo.com), which experience may also provide general insights.

**(f) the impact of Verizon Media's brands on user behaviour**

26.7 Verizon Media is not aware of any research conducted by Verizon Media on this topic as it relates to search.

27. **# Please explain how Verizon Media makes decisions about trade-off between user experience on Tumblr platform and the number and relevance thresholds of ads to display. Please support your answer with references to internal studies or tests, as well as internal documents about these trade-offs and decisions.**

27.1 As a publishing platform that is entirely reliant on the ad sales and serving capabilities of its advertising services partners, Tumblr must use standard ad formats and the relevance capabilities that are offered by its advertising services partners. Tumblr is also limited to the brands and advertisers secured by Verizon Media's advertising services.

27.2 Verizon Media is not aware of any internal studies or documentation regarding this issue.

*Investments and innovation*

28. **Please explain to what extent Verizon Media has experienced economies of scale and scope in operating Tumblr, identifying which costs vary with the number of users and which are fixed.**

28.1 Tumblr has benefitted from Verizon Media's scale and scope in that Tumblr has not had to employ its own advertising sales force, create or contract for advertising technology, or secure its own general corporate support such as HR, legal and accounting functions. Verizon Media has experienced economies of scale and scope in that it has been able to offer advertisers access to Tumblr's interest-based user base and demographics and leverage Tumblr as a publishing platform/host for brand campaigns. Verizon Media's corporate support costs do not vary with the number of Tumblr users. Verizon Media's content moderation staff, content delivery (e.g., CDN, DNS), advertising and server costs vary based on the number of users.

29. **Based on Verizon Media's experience, please identify the necessary investments that would be required to develop a platform such as Tumblr from scratch. Please support your answer with reference to internal documents.**

(a) **Please identify the key inputs (for example, data, technologies, finance and skills) that would be required. In your view, which of these would be most difficult for a new entrant to access or replicate?**

(b) **What sources of data are there that potential entrants could use? What types of data would be most difficult for a new entrant to access or replicate?**

(c) **To what extent would new entrants need to achieve a minimum scale in order to compete effectively? If so, at what level would this minimum scale apply?**

(a) **Please identify the key inputs (for example, data, technologies, finance and skills) that would be required. In your view, which of these would be most difficult for a new entrant to access or replicate?**

29.1 Tumblr would need to invest in servers, engineers, technology development, analytics tools, advertising serving, advertising technology, ad sales and commissions, facilities/office space and equipment, IT security, marketing, traffic/user acquisition, hosting expenses, general business support (e.g., accounting, legal, communications, HR, support), content moderation technology and staff, design, product management and financing for all the foregoing. The most

difficult inputs to acquire or replicate would be talented engineers, technology development, and content moderation technology and tools. In addition, it is anticipated that operational costs will rise with the introduction of market-wide online harms and audio-visual content regulation.

**(b) What sources of data are there that potential entrants could use? What types of data would be most difficult for a new entrant to access or replicate?**

29.2 Data sources that are available for a new entrant include: email marketing lists, demographics of users on the web and other platforms (e.g., Comscore, Nielsen), publicly available versions of the Twitter and other social media APIs that include user activity data, and Google analytics. The most difficult types of data to access or replicate would be potential user base activity data and information (e.g., trends, peak activity periods, feature usage) and the user generated content itself (which takes time and requires scale).

**(c) To what extent would new entrants need to achieve a minimum scale in order to compete effectively? If so, at what level would this minimum scale apply?**

29.3 To compete with the current competitors for users and advertiser dollars, Verizon Media believes based on current market dynamics that new entrants would need to achieve a minimum scale of approximately 25 million DAUs (daily active users), and of that, users in the 18-24 year old demographic would be especially helpful.

29.4 Verizon Media is not aware of any relevant internal documents.

30. **#Please explain the extent to which Verizon Media plans to grow its online search services and social media platform in the UK over the next five years (for example, in terms of the number of users and the time that users spend on these platforms). What are the key barriers to expansion that Verizon Media perceives?**

30.1 Verizon Media's strategy for its search services is [REDACTED]. As such, there are no internal documents relevant to this issue. Key barriers to expansion in the UK for Verizon Media include [REDACTED]  
[REDACTED]

30.2 As explained in response to Question 1, Verizon Media does not consider Tumblr to be a social media platform as that term is used in this request. However, Verizon Media notes that it is not planning or exploring innovations with respect to Tumblr. On August 12 2019, Verizon Media and Automattic Inc. announced that the companies have entered into a definitive agreement under which Automattic plans to acquire Tumblr.

31. **Please explain how Verizon Media sees innovation shaping its online search services and social media platform over the next five years. In answering, please describe the main innovations that you have currently have planned and any innovations that you have decided not to pursue and why.**

31.1 In Verizon Media's view, the main innovations for search services relate to [REDACTED]  
[REDACTED]

Verizon Media continues to innovate in this area.

31.2 As explained in response to Question 1, Verizon Media does not consider Tumblr to be a social media platform as that term is used in this request. Verizon Media also notes that it is not planning or exploring innovations with respect to Tumblr, due to the planned sale of the business referenced above.

***Competition in digital advertising***

*Auction mechanisms*

32. ***What proportion of Verizon Media's ad inventory is auctioned using real-time bidding procedures? Please explain in what circumstances Verizon Media negotiates the sale of advertising inventory directly with advertisers or advertising agencies rather than via its standard auction process.***

32.1 As explained in Verizon Media's introduction in response to Question 1, it is difficult to answer this type of question in a way that neatly silos directly sold display ads on Verizon Media's content and communications properties from ads that flow through Verizon Media's ad tech stack, which is more akin to advertising intermediation services and will be the subject of the upcoming RFI relating to advertising intermediation. The proportion of Verizon Media's advertising inventory for display and video advertising units that is auctioned using real-time bidding procedures is approximately █. This is consistent with the market trend and in response to advertiser demand. The circumstances in which Verizon Media negotiates the sale of advertising inventory directly with advertisers or advertising agencies rather than via its standard auction process is the managed advertising service offering in which an advertiser or advertising agency issues an insertion order that Verizon Media fulfills from publisher inventory as described in Question 2 above.

33. ***Please describe the auction mechanisms used by Verizon Media to sell digital advertising for each of search and display. In your answer please explain:***

- (a) ***How relevance is assessed to determine eligibility for auctions and/or weight bids. What are the key features that determine relevance?***
- (b) ***In relation to search advertising, how Verizon Media determines whether advertising is presented in search results and how many ads are presented. Do bidders know the number of available slots when submitting a bid?***
- (c) ***Based on what metric are bids submitted (e.g. cost per impression (CPM), cost per click (CPC), cost per action (CPA))? Do advertisers have the flexibility to choose among more than one metric? If so, how are bids based on different metrics ranked?***
- (d) ***How the ranking of bids is determined.***
- (e) ***How is payment from the winning bidder(s) determined (e.g. first price, second price, Generalised Second Price (GSP), Vickrey-Clarke-Groves (VCG))?***
- (f) ***Any differences between when Verizon Media is selling its own inventory and intermediating on behalf of other publishers.***
- (g) ***Verizon Media's objectives in setting this approach. What factors does Verizon Media have to balance in deciding on this approach?***

33.1 Verizon Media believes subparts (a) and (b) refer to search advertising and Verizon Media does not offer, sell, or manage search advertising through its platforms (see Verizon Media's response to Question 4 above). Therefore, this response does not address those subparts.

(c) ***Based on what metric are bids submitted (e.g. cost per impression (CPM), cost per click (CPC), cost per action (CPA))? Do advertisers have the flexibility to choose among more than one metric? If so, how are bids based on different metrics ranked?***

33.2 In the Verizon Media Exchanges, bids are submitted on a CPM basis. In the Verizon Media Native platform, bids can be submitted on a CPM, CPC, or CPV basis.

(d) **How the ranking of bids is determined**

33.3 In the Verizon Media Exchanges, eligible bids are determined by the application of buying and selling rules (e.g., advertiser targeting, publisher floors, advertiser categories blocked by the publisher) and eligible bids are ranked by highest amount.

(e) **How is payment from the winning bidder(s) determined (e.g. first price, second price, Generalised Second Price (GSP), Vickrey-Clarke-Groves (VCG))?**

33.4 Generally, first price and second price auctions may be used across the Verizon Media Exchanges and the type of auction is typically designated by the publisher and communicated in the bid request. For its owned and operated display inventory, Verizon Media currently uses a first price auction. For its owned and operated video and mobile inventory, Verizon Media currently uses a second price auction. For third party display inventory, a first price auction is generally used, and for third party video or mobile inventory, a second price auction is generally used. In the Verizon Media Native platform, generally a second price auction is used for CPC campaigns and a first price auction is used for CPM campaigns.

33.5 (f) **Any differences between when Verizon Media is selling its own inventory and intermediating on behalf of other publishers**

33.6 When Verizon Media sells inventory on behalf of other publishers, Verizon Media generally charges a percentage of the advertising spend for the seller's digital advertising inventory as a fee. However, this fee is not assessed when Verizon Media sells its own inventory.

(g) **Verizon Media's objectives in setting this approach. What factors does Verizon Media have to balance in deciding on this approach?**

33.7 Based on its response to (f), Verizon Media believes this question is not applicable.

*Competition*

34. **For a) search and b) display advertising, separately, who does Verizon Media see as its main competitors? Please cross-refer to your response to questions 21 and 22 where appropriate.**

(a) **What does Verizon Media see as its relative strengths and weaknesses (from the perspective of advertisers) compared to each of these competitors?**

(b) **Are there any competitors who compete closely for a particular segment of advertisers or industry sector? If so, please identify the relevant sectors.**

*Please suggest a method to identify sectors or use the classification of 18 industries identified by Wordstream.*

(c) **How has Verizon Media adapted its strategy for each of search and display advertising in response to competitors?**

(d) **# Please provide any internal documents since the formation of Verizon Media in June 2017 which refer to its competitive strategy and main competitors in search and display advertising.**

### **Search Advertising**

As explained in response to Question 4, Microsoft provides all search advertising for Verizon Media's search services. But generally (as detailed more fully in the response to Question 21), the main search advertising competitors in this area include Google and Microsoft (Bing).

**(a) What does Verizon Media see as its relative strengths and weaknesses (from the perspective of advertisers) compared to each of these competitors?**

34.1 Verizon Media provides a unified search offering with Bing, and Microsoft exclusively contracts with advertisers and competes with Google for their spend. At a high level, Bing's weaknesses (from the perspective of advertisers) compared to Google is that Bing – including via Microsoft's partnership with Verizon Media – cannot provide as much user volume as Google, and Google has a greater number of high quality searches due to the fact that they own so much of the search volume. User volume and associated data allows Google to recruit and effectively monetise 'long tail' advertisers. It is probable that financial and other incentives to OEMs and others play a role, as well as the relative revenue shares Bing has to offer partners in order to secure market share.

**(b) Are there any competitors who compete closely for a particular segment of advertisers or industry sector? If so, please identify the relevant sectors.**

34.2 Verizon Media provides a unified search offering with Bing, and Microsoft exclusively contracts with advertisers and competes with Google for their spend.

34.3 Verizon Media does not consider itself or its competitors, such as Google and Bing, to compete for particular segments of advertisers or industry sectors. Mobile apps, however, tend to be highly verticalized and are taking searches away from traditional search engines – e.g., users search Yelp for restaurant information, Amazon for shopping, and mobile mapping apps for directions. As noted above, Google is uniquely well placed to recruit and retain "long tail" advertisers and competition may be reduced in this market segment.

**(c) How has Verizon Media adapted its strategy for each of search and display advertising in response to competitors?**

34.4 Please see the strategies outlined above in response to Question 21(c).

**(d) # Please provide any internal documents since the formation of Verizon Media in June 2017 which refer to its competitive strategy and main competitors in search and display advertising.**

34.5 Please see the documents produced in response to Question 21 attached in **Annex 030-035**

### **Display Advertising**

34.6 Google, Facebook, and increasingly Amazon, are Verizon Media's main competitors in the advertising sector (for all advertising products and services) in the UK.

**(a) What does Verizon Media see as its relative strengths and weaknesses (from the perspective of advertisers) compared to each of these competitors?**

34.7 Verizon Media's main competitive strengths include:

- (a) Verizon Media's owned and operated inventory;
- (b) the scale of Verizon Media's audience; and

- (c) access to audience data from its websites and applications, which clients can use for targeting through Verizon Media's advertising platforms.

34.8 Regarding competitors in the native advertising sector, Facebook has more users, and therefore, more data and reach for advertisers. Facebook's ad platform for native ads also has additional features in comparison to the Verizon Media Native Platform (e.g., granular targeting). In the display advertising sector, Google has more users (e.g., YouTube), and therefore, more data and reach for advertisers. Google also has more third party inventory available through its platforms, its ad exchange (AdX) has more features, and Google offers a full stack of products and services in the advertising ecosystem including a DSP, an ad network, an ad exchange/SSP, ad server (DoubleClick Campaign Manager and Google Ad Manager), a DMP (Audience Center 360), AdSense, and analytical tools (Google Analytics). Amazon is also a formidable competitor due to its significant resources, the size of its owned and operated inventory, direct user relationships, its data, and its ability to offer products and services in the advertising ecosystem, including a DSP and header bidding solutions.

**(b) Are there any competitors who compete closely for a particular segment of advertisers or industry sector? If so, please identify the relevant sectors.**

34.9 Some of Verizon Media's competitors in different industry sectors are further set forth below:

- (a) Native advertising: Facebook, Outbrain, Taboola. Facebook is a strong performer in this sector.
- (b) Ad exchange/SSP/marketplace technology: Google Ad Manager (formerly DoubleClick for Publishers and DoubleClick Ad Exchange), AppNexus, Rubicon Project, Pubmatic, MoPub, and OpenX. Google Ad Manager and AppNexus are strong performers in this sector.
- (c) DSP technology: Google Display & Video 360 (formerly DoubleClick Bid Manager (DBM)), the Trade Desk, Adobe, AppNexus, MediaMath, Turn, DataXu. Google Display & Video 360, Appnexus, The Trade Desk, and A9 (Amazon) are strong performers in this sector.

**(c) How has Verizon Media adapted its strategy for each of search and display advertising in response to competitors?**

34.10 Verizon Media has sought to differentiate itself from market leaders and to encourage buyer switching. Verizon Media is creating a consumer-centric media ecosystem focused on growing its communications and content offerings, for example, via its "superchannels" strategy (essentially, investment in Yahoo Sports and Yahoo Finance and other premium brands). Verizon Media believes these superchannels will be valuable, brand safe environments that will increase display advertising monetisation. Relatedly, differentiators include marketing Verizon Media's commitment to trust and innovation, and providing a brand-safe environment for advertisers on owned and operated services as an alternative to user generated services which advertisers consider to be less brand safe. Verizon Media also provides ad tech services (e.g., anti-fraud detection) by default and at no charge to advertisers.

34.11 In the near term, Verizon Media is also enhancing its owned and operated supply in EMEA by growing its third party partner supply. Verizon Media's partnership with Microsoft where Verizon Media added certain Microsoft native inventory to its native marketplace is an example of this strategy.

**(d) #Please provide any internal documents since the formation of Verizon Media in June 2017 which refer to its competitive strategy and main competitors in search and display advertising.**

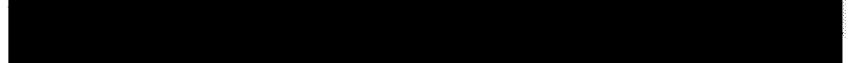
34.12 Please see the Verizon 2019 Investor Meeting presentation and transcript attached as **Annexes 039-40**. Verizon Media refers the CMA to pages 44-49 of the presentation and 12-14 of the transcript. The strategies outlined in these documents generally apply to the UK market. In addition, please see the business objectives documents attached in **Annexes 030-035**, some of which may not apply to the UK market specifically, the "Life After GDPR" presentation attached in **Annex 013** and the "VZ DSP" presentation attached in **Annex 011-012**.

35. ***What is Verizon Media's perspective on the main ways in which competition and market outcomes in the digital advertising market have evolved over the past few years?***

- (a) ***What is the impact of new technologies?***
- (b) ***What is the impact of greater/better use of data?***
- (c) ***How have market outcomes been affected?***

(a) & (c) ***What is the impact of new technologies? How have market outcomes been affected?***

35.1 The digital advertising market has been significantly impacted by the following:

- (a) **Shift to Mobile Devices:** The number of people who access the Internet through mobile devices rather than a PC, including mobile telephones, smartphones and tablets, is increasing and will likely continue to increase dramatically. More of Verizon Media's monthly users are now accessing Verizon Media properties on mobile devices. In addition, search queries are increasingly being undertaken through mobile devices. As a result, Verizon Media's ability to grow advertising revenue is increasingly dependent on Verizon Media's ability to generate revenue from ads displayed on mobile devices.  

- (b) **Shift to Programmatic:** Verizon Media continues to see a shift to programmatic buying which presents opportunities for advertisers to connect with the right user, in the right moment, in the right context.
- (c) **Blocking Technologies:** Technologies, tools, software, and applications (including new and enhanced browsers) have been developed and are likely to continue to be developed that can block or allow users to opt out of display, search, and interest-based advertising and content, delete or block the cookies used to deliver such advertising, or shift the location in which advertising appears on pages so that Verizon Media advertisements do not show up in the most monetisable places on Verizon Media's pages or are obscured. This results in a direct loss of revenue where ad intermediaries cannot track and report on viewability of impressions to advertisers. The adoption of such technologies, tools, software, and applications is reducing the number of search and display advertisements that Verizon Media is able to display and/or its ability to deliver interest-based advertising and Verizon Media expects this trend to continue. More significantly, several providers of such technology have subsequently developed ad platform businesses which resell blocked inventory without the authorisation of the underlying publishers (and in breach of ad industry standards) which further impacts revenues to digital content and services businesses.
- (d) **Action by Other Intermediaries:** As noted above in response to Question 3 above (and in more detail in response to Question 43 below), any change to browsers' neutral posture – such as Apple's Intelligent Tracking Protection or Google's recently-announced changes to Chrome – presents an existential threat to both competition in the third party digital advertising market and to the ability of digital content and services

providers (particularly those without logged-in users) to generate revenues to fund their content production and journalism. It may also impact publishers' choice of third party ad partners in the future.

- (e) **Proposed or New Legislation:** Proposed or new legislation and regulations has also reshaped the digital advertising market and impacted the market unevenly, with greatest impact falling on challenger ad platforms in the third party ecosystem and providers of digital content. For example, GDPR took effect in May 2018 and applies to all of Verizon Media's products and services used by people in Europe. Similarly, there are a number of legislative proposals in the European Union, the United States, at both the federal and state level, as well as other jurisdictions that could impose new obligations in areas affecting Verizon Media's global product development plans or influence future investment plans in the UK and Europe. These include the draft ePrivacy regulation, AVMS Directive, the Platform-to-Business Directive and others. In addition, some countries are considering or have passed legislation requiring local storage and processing of data or similar requirements that could increase the cost and complexity of delivering Verizon Media's services. These laws and regulations, as well as associated inquiries and investigations by regulators or other government actions, are often adopted with no assessment of cumulative impact or operational plan as to how digital companies with complex business models should practically comply. This typically comes after the fact, once the impact on the competitive landscape has been felt. As a result they have been or will be disproportionately costly for challenger brands to comply with and require significant management time and attention. The novelty of these frameworks also creates legal uncertainty which coincides with a period of economic volatility and challenging competitive landscape. While Verizon Media cannot predict the full outcome of adapting its business to these laws and regulations, it believes they may delay or impede the development of new products.
- (f) **Premium Content:** Verizon Media's success depends in part on its ability to aggregate compelling content and deliver that content through its online properties. Verizon Media licenses from third parties much of the content and services on Verizon Media's online properties, such as news, stock quotes, weather, sports, video, and photos. Verizon Media believes that users are increasingly demanding high-quality content and services. Verizon Media has seen competition for compelling content increase both domestically and internationally. Verizon Media competes directly with the largest platforms – including Facebook – for premium content partners. Verizon Media also competes with platforms that offer revenue guarantees that can inflate the market value of content. As the cost of licensing or acquiring compelling content has risen, it has become more challenging for companies to differentiate themselves and attract and retain users by delivering a unique content experience.

**(b) What is the impact of greater/better use of data?**

- 35.2 Utilizing Verizon Media's diverse data set is central to Verizon Media's core strategy of delivering high performing ad platforms. In addition, see the responses to (a) and (c) above regarding the impact of developments in ad blocking and browser technologies.
- 36. ***For display advertising, what are the ways in which buyers of advertising can exercise negotiating strength? To what extent is Verizon Media aware of the use of coordinated bidding strategies in the purchase of advertising? What actions, if any, has Verizon Media taken to address this?***
- 36.1 Ad spend to Verizon Media's ad platforms is typically channelled via advertising and media agencies although there is a trend towards advertisers designing and managing campaigns in-house. Buyers can exercise negotiating strength in a variety of ways. For example, an advertiser's quality, reputation, value, campaign spend, growth opportunity, and transactional history with Verizon Media are ways in which negotiation strength can be exercised. Verizon

Media is not aware of the use of coordinated bidding strategies in the purchase of advertising as it relates to Verizon Media's business.

37. ***Please explain what other complementary services, such as research and user analytics, are sold by Verizon Media to advertisers (in addition to advertising inventory).***
  - (a) ***Please explain whether and how these services are integrated with the advertising platform.***
  - (b) ***Are equivalent services available to advertisers from other sources?***
  - (c) ***How commonly are these services sold as an integrated package with the advertising platform versus independently?***
- 37.1 Verizon Media provides a complementary service known as Audience Insights that allows buyers to understand audiences and behaviours based on aggregated and anonymized user level data. Audience Insights is currently not sold independently but is offered to certain buyers that have a strategic relationship with Verizon Media. Verizon Media expects the way this service is sold will evolve in the coming years. Similar insights services are provided by Google (e.g., Google Analytics) and Facebook. Verizon Media does not consider this to be a market substitute for other services offered by Verizon Media's competitors, but rather a premium service currently offered only to Verizon Media's premium customers.
- 37.2 Verizon Media also provides a number of analytical tools to help developers improve their apps with various tools such as Flurry, an independent mobile apps analytics service.
38. ***Please describe Verizon Media's plans to meet changes in the competitive dynamics of digital advertising in the next three years?***
- 38.1 Please see Verizon Media's response to Question 34(c).
- 38.2 With respect to Verizon Media's advertising intermediation business, Verizon Media expects to respond more fully in the forthcoming RFI on this.

#### ***Advertising quality and effectiveness***

39. ***Please describe the main issues in ensuring that the digital advertising market is of consistently high quality and effectiveness and secures brand safety? What are the issues which advertisers complain about most often? What steps has Verizon Media taken to address these issues?***
- 39.1 Ad fraud, which involves intentional deception to misappropriate money from advertisers, publishers, consumers, or all of the above, is one of the main issues facing the digital advertising market. Details on the steps taken by Verizon Media to tackle fraud are set out in detail in Question 41 below.
- 39.2 In addition, advertisers are also concerned about brand safety, or whether their ads are placed near appropriate content. Verizon Media allows advertisers to use leading third party vendors of their choice to verify brand safety. It is important to note that brand safety is a policy set by the advertiser/brand and expressed in a RFP which a platform responds to and, if successful, executes on. As an ad platform, Verizon Media provides tools and services which allow buyers to implement a brand safety policy. For example, Verizon Media uses a standard set of default black lists to ensure that ads are not placed around illegal content, piracy, pornography, etc. as stated in Verizon Media's brand safety policy. To create these blacklists Verizon Media may

also use publicly available lists of infringing websites. Ultimately, it is buyers that decide which platforms meet the requirements of the brand safety policy.

39.3 Verizon Media provides these tools free of charge to buyers and Verizon Media continues to invest in the development of industry standards (e.g., JICWEBS, IAB Gold Standard and TAG) and self-regulation in a range of areas including brand safety, fraud detection, viewability etc. Verizon Media does this to differentiate Verizon Media's platforms from market leaders and encourage switching by ad buyers.

39.4 For further detail, please see the presentation on Verizon Media's advertising policy and industry standards, attached as **Annex 041**.

40. **For display advertising:**

(a) **What steps does Verizon Media take to ensure that audience measurement (e.g. what counts as a view/impression, customer demographics and behaviour, etc.) are (i) accurate, and (ii) transparent to/understood by advertisers and their agents?**

(b) **Does Verizon Media allow third-party measurement (independent verification of delivery and analysis of advertising performance) on its websites? Please explain the rationale behind any limitations on this.**

(c) **How does Verizon Media prevent ads that may be annoying, misleading, or harmful to users from appearing on its websites?**

(d) **What steps does Verizon Media take to assure advertisers and media buyers over issues of (i) viewability, (ii) non-human traffic, and (iii) brand safety?**

(e) **What metrics / tools does Verizon Media have to measure the effectiveness of advertising campaigns? To what extent do advertisers make use of these metrics / tools? Please describe any additional charges to advertisers for accessing these metrics / tools.**

(f) **Please explain whether and how Verizon Media carries out and field experiments or A / B tests to test the effectiveness of advertising campaigns. What information is used and what information is provided to advertisers?**

(a) **What steps does Verizon Media take to ensure that audience measurement (e.g. what counts as a view/impression, customer demographics and behaviour, etc.) are (i) accurate, and (ii) transparent to/understood by advertisers and their agents?**

40.1 Please see the presentation on Verizon Media's advertising policy and industry standards, attached as **Annex 041**. Verizon Media has adopted a multi-layered approach to ensure audience measurement is accurate and transparent to/understood by advertisers and their agents:

(a) **Proprietary Tools:** To detect viewability and non-human traffic issues, Verizon Media uses proprietary viewability and fraud detection tools (as set out in Question 41 below), and Verizon Media is continuously researching and developing new technologies.

(b) **Third Party Technology:** Verizon Media's ad platforms allow integration with industry leading providers of viewability, brand safety (as detailed in Question 39 above) and fraud detection tools, allowing partners to rely on Verizon Media's proprietary tools and also leverage third party technology when needed. Verizon Media also supports both pre-bid and post impression measurement and reporting.

(c) **Industry Groups and Networks:** Verizon Media actively participates in leading digital advertising industry groups (such as the various schemes developed by the Internet Advertising Bureau, TAG and NAI) and networks in order to keep abreast of and contribute to industry developments and best practices.

(b) **Does Verizon Media allow third-party measurement (independent verification of delivery and analysis of advertising performance) on its websites? Please explain the rationale behind any limitations on this.**

40.2 Yes. See the response to subpart (a) regarding "Third Party Technology" above.

(c) **How does Verizon Media prevent ads that may be annoying, misleading, or harmful to users from appearing on its websites?**

40.3 Verizon Media attempts to prevent ads that may be annoying, misleading, or harmful to users from appearing on its websites, including through the means listed below. Despite these efforts, Verizon Media, like others in the industry, continues to be challenged by bad actors in the ad ecosystem who hide the true nature of their ads and offers during Verizon Media's review ("cloaking") or otherwise use their ads to scam consumers.

(a) **Ad Policies:** Advertisers on Verizon Media's sites and platforms must agree to comply with Verizon Media's Ad Policies, which are designed to promote a high quality experience for users and clients.

(b) **Ad Review Process:** Advertising on Verizon Media's sites and platforms is reviewed by either automated tools or human reviewers for quality control and compliance.

(c) **Ad Feedback:** Many of Verizon Media's ads contain an option for users to provide feedback, including why they do not like particular ads. Feedback is reviewed regularly and non-compliant or offensive ads are removed from Verizon Media's platforms.

(d) **Onboarding Process:** On Verizon Media's DSP, Verizon Media conducts a review of advertisers, agencies, ad networks, or other partners, before allowing them to access and distribute ads via Verizon Media's platforms.

(e) **Suspension or Removal Process:** Advertising partners who are found to violate Verizon Media's policies, (for example, by distributing malware), are subject to suspension or removal from Verizon Media's platforms.

(e) **What metrics / tools does Verizon Media have to measure the effectiveness of advertising campaigns? To what extent do advertisers make use of these metrics / tools? Please describe any additional charges to advertisers for accessing these metrics / tools.**

40.4 In Verizon Media's DSP platform, advertisers can use their preferred measurement vendor to ensure that campaigns are viewed by their intended target on the right sites (e.g., DoubleVerify, MOAT, Integral Ad Science, comscore, Nielsen). Verizon Media also uses third party vendors to measure the effectiveness of specific campaigns on its platforms. Advertisers can use these vendors to analyse brand lift via A/B tests, creative and content testing, and behavioural lift studies. Finally, Verizon Media is currently exploring solutions that leverage Verizon Media's first party data to conduct ad effectiveness and lift studies (e.g., conversion lift, sales lift).

(f) **Please explain whether and how Verizon Media carries out and field experiments or A / B tests to test the effectiveness of advertising campaigns. What information is used and what information is provided to advertisers?**

40.5 Please see the answer to subpart (e) above. Verizon Media allows advertisers to create user groups where they can show ads to one group and not to other, which helps advertisers perform A/B testing of ad effectiveness.

41. ***Please explain Verizon Media's policy on advertising fraud and the actions it has taken since the formation of Verizon Media to tackle it.***

41.1 Verizon Media works actively to eliminate fraud on Verizon Media's platforms, using a number of internal processes, as well as proprietary and third party tools, to combat ad fraud. Steps taken by Verizon Media include the following:

- (a) Verizon Media uses an in-house traffic protection tool which is designed to block fraud both pre-bid and post-serve to inform and improve Verizon Media's ongoing fraud detection abilities.
- (b) Verizon Media offers an anti-fraud guarantee to help ensure that it is delivering quality inventory and service.
- (c) Advertisers are not charged for any fraudulent impressions identified by Verizon Media's proprietary tool.
- (d) Verizon Media integrates added protection from leading anti-fraud and quality vendors to enable clients to choose the solution that best meets their needs.
- (e) Advertisers can use third party fraud detection tools when running campaigns with Verizon Media, and should those tools detect fraudulent traffic that Verizon Media's own tools do not detect then Verizon Media will credit back the value of fraudulent impressions if a discrepancy of >5% is reported between Verizon Media's technology and the third party technology.

#### ***Remedies***

42. ***What improvements to regulation or other remedies do you believe may improve the way in which the digital advertising market (including advertising intermediation) works? Please explain the rationale for your suggestions.***

42.1 This response is from the perspective of Verizon Media's content and communications services. Verizon Media's strategy is centred on maximising the value of its brands' advertising inventory through sales on Verizon Media's ad platforms and via other ad platforms. This requires a vibrant and competitive market for advertising intermediation.

42.2 Specific guidance and interventions on providers that have "strategic market status":

- (a) The Cairncross Review recommended that platforms should develop codes of practice to set out basic rules for engagement with publishers distributing and monetising content via their services. Such initiatives could help redress imbalances in negotiating power that publishers experience with platforms that have strategic market status but regulators will need to ensure that the design and governance of the codes are not overly influenced by the platforms whose behaviour the codes are intended to oversee.
- (b) The Furman Panel recommended the creation of a "digital markets unit" to use tools and frameworks that will support greater competition and consumer choice in digital markets. Consideration should be given to allowing challenger platforms to report potential anti-competitive practices by those with strategic market status for rapid investigation before lasting damage is done to competitors and the competitive

landscape. This process should be designed with the resources and capabilities of challenger brands in mind. In particular, regulators would need to carefully balance the burden of information requests on challenger brands with incentives to report potential competition concerns.

- (c) Laws limiting data "sharing" or "selling" benefit companies that already have large troves of data because they already have the data in contrast to their competitors who need to acquire data – their fuel – to develop competitive scale. The value of inventory is connected to the identifiability of the consumer seeing the ad, and the richness of the information that can be connected to that identifiable user. Legislative initiatives that seek to regulate "sharing" of data within the competing third party ad ecosystem undermine the ability of competitors to the dominant players to acquire the data needed to fuel operations and effectively compete.

**42.3 Restraint by policy-makers in pursuing new policy and legislation which may hinder competition:**

- (a) Market-wide data protection laws which stipulate consent as the only valid legal base for cookies and ad personalisation benefit companies with large first party relationships and data sets. Remedies should forebear from recommending additional consent obligations on third party players and explore approaches that demonstrably level the regulatory playing field for competitors and do not disadvantage the competing third party ad ecosystem. In the longer term, this should include exploring other legal bases for processing data that do not hinder the competing third party ecosystem. In the short term, Furman Panel's recommendation that "A retrospective assessment of the impact of the GDPR would be a valuable exercise to ensure the regulations are operating as intended and are not unduly impacting competition" should be pursued as part of this market study.
- (b) More generally, regulatory and legislative proposals should be technology neutral and business model neutral, and seek to solve for identifiable public policy issues. The current trend of using unrelated areas of regulation as a means to address competition issues has proved self-defeating by creating the greatest legal risk and compliance burden for competitors and favouring market leaders (e.g., GDPR). Likewise, the trend towards homogenising the sector has assumed that practices and problems of certain, market-leading, platforms are widespread and require market-wide regulation (e.g., Cambridge Analytica). Directing policy-development in this way means that the needs of the wider market and cumulative impact of regulation on competitors are frequently overlooked. Future policy-making should focus on incentivising and rewarding good company practice, for example, thinking of consent in the context of the many other GDPR obligations that foster accountability and make organizations better at protecting data.

**42.4 Assessment of impact of other intermediaries:**

- (a) It is important that browsers continue to be neutral players in the digital advertising and content distribution value chain. Companies in these market segments should not have to adapt and defend against changing browser defaults.
- (b) As noted above in response to Question 3 above, any change to browsers' neutral posture presents an existential threat to both competition in the third party digital advertising market and to the ability of digital content and services providers (particularly those without logged-in users) to generate revenues to fund their content production and journalism. It also interferes with consumer preferences which are recorded via cookies.
- (c) Browser companies should not be able to determine public policy by setting standards in place of applicable law:

- (i) When browser companies alter the defaults of their browser controls, or offer new functionality that serves to limit data collection, non-platform companies suffer. For publishers, fewer objects or cookies on their pages can monetise the site. For intermediaries, the ability to gather data is undermined. By limiting the fuel for third party competitors of platforms, market leaders benefit.
- (d) Third party log in can impact advertising ecosystem:
  - (i) Third party log ins are used by a number of third parties but implementations can limit advertiser's ability to retarget ads on certain devices and have implications for the health of the third party ecosystem. This undermines the ability of advertisers to connect with audiences, publishers to monetise their sites, and publishers and ad tech companies to compete with market leaders.

42.5 Consideration of buy-side remedies:

- (a) The buying power of advertisers and agencies has shaped today's digital advertising market. Government and the CMA should forebear from regulation and market-wide interventions to address advertiser concerns where there are already remedies in the market - i.e.: abundant supply of ad inventory on curated content services as alternatives to user generated content sites, established industry-wide standards to combat fraud and support advertisers' brand safety policies. This would serve only to disincentivise investment in ad tech services and hold back competition in this maturing market, as well as the development of industry standards and self-regulation by competitors.
- (b) Focusing attention on remedies which encourage buyer switching are likely to have the most lasting impact on competition.

*Data mobility*

43. ***Please explain the extent to which you consider that enabling data mobility, in which consumers could move their data between different applications, would reduce barriers to switching and facilitate multi-homing in the markets for online search services, social media platforms and in digital advertising markets. In answering this question:***

- (a) ***Please specify and explain the benefits that you expect data mobility could deliver, including the type of data that you consider would be most effective at delivering these benefits, and how data mobility would support the growth and increased usage of your online search services and social media platform.***
- (b) ***Which platforms do you consider data mobility should be applicable to in order to maximise its potential benefits?***

(a) Please specify and explain the benefits that you expect data mobility could deliver, including the type of data that you consider would be most effective at delivering these benefits, and how data mobility would support the growth and increased usage of your online search services and social media platform.

43.1 Data mobility can be effective in specific situations and to address specific and well-understood competition outcomes - for example, to facilitate number portability in domestic telecoms services or switching tools for retail broadband or energy services. Particularly where the data or protocols to open are complex and sometimes remedies should be limited to entities with "strategic market status", rather than as a general intervention across the market. The remedies suggested in the Statement of Scope, however, seem overly broad and it is unclear as to the

scope of application and what competition barrier(s) data mobility would solve for. Verizon Media would need to understand this better before commenting in more detail. It is also worth noting that digital services have characteristics which make data mobility solutions more challenging including the network effects (e.g.: whether or not a friend also switch social media platforms is relevant to the user's decision whereas this is not relevant to a user's decision about switching energy suppliers and social media services are not perfect substitutes in the same way phone numbers or energy).

**(b) Which platforms do you consider data mobility should be applicable to in order to maximise its potential benefits?**

43.2 Verizon Media would need to better understand the competition barriers in question better before commenting in more detail. Overall, data mobility presents challenges of technical compatibility, adaptation and compliance costs, confusion over data definitions and significant security concerns. Remedies which focus on encouraging buyer switching, addressing platforms with "strategic market status" and ensuring the even application of data protection and other regulation are likely to be the most impactful on competition.

44. **#Please describe your experience and views of the Data Transfer Project. In answering, please explain whether you have been involved directly and how you see this initiative impacting competition between online search services platforms in the UK. If you have made an internal assessment of this initiative, please supply internal document(s) that set out this assessment.**

44.1 Verizon Media has limited experience with the Data Transfer Project, and do not participate. In theory, there may be some consumer benefits to technical standards for data portability if these are adopted widely and present an easier path to compliance implementation for small and mid-size companies. As Verizon Media notes in its response to other questions, Verizon Media does not consider that consumer data portability or interoperability would materially improve Verizon Media's competitive landscape at this time and it could take a long time for benefits to be felt by consumers and others in the ecosystem. As noted in Verizon Media's response to Question 43, other remedies on the ad tech intermediation and demand side are likely to be more impactful. As such, Verizon Media does not have internal documents to support its answer.

45. **Are there any data mobility schemes, other than the Data Transfer Project mentioned in the question above, that you have participated in during the last 5 years? If so, please identify which schemes you have participated in and the associated benefits and of your participation. If not, please explain why you have not chosen or been able to join such schemes.**

45.1 Verizon Media has participated in a small number of schemes, for example:

- (a) DataX is an aggregate Yahoo infrastructure that hosts various components that enable Yahoo/Verizon Media to exchange data with its external partners in a secure, automated and scalable manner. Partners can exchange structured data against user identifiers such as cookies, user-matchedids, household ids, etc., and share information such as segment qualifications, user attributes, seed segments, audience models, etc., using the DataX infrastructure and API.
- (b) The IAB Transparency and Consent Framework addresses the challenges facing publishers and their third party advertising intermediation partners to comply with the requirement of the GDPR to obtain valid user consent. This involves deploying IAB PrivacyChain, which uses Blockchain.

*Systems with open standards*

46. *Please explain the extent to which you consider that interoperability requirements for services such as Tumblr, such that entire services become compatible with one another and customers can switch to a new provider whilst continuing to interact with users on their previous platform, would reduce barriers to switching and facilitate multi-homing?*

46.1 As noted above, such remedies can be effective in specific situations and to address specific and well-understood competition outcomes. The Statement of Scope proposes a very far-reaching remedy but is unspecific about the specific competition barriers interoperability would address. Verizon Media would need to better understand the competition barriers in question better before commenting in more detail. Such remedies should be limited to entities with "strategic market status", rather than as a general intervention across the market. As previously mentioned, remedies which focus on encouraging buyer switching and ensuring the even application of data protection rules and other regulation are likely to be the most impactful on competition.

46.2 Verizon Media has not considered the impact of interoperability on Tumblr due to the planned sale mentioned above.

47. *Please specify and explain the benefits that you consider that such interoperability would deliver, including through supporting your growth and the increased usage of your platform. Which platforms do you consider such interoperability should be applicable to in order to maximise its potential benefits?*

47.1 Verizon Media has not considered interoperability with respect to Tumblr due to the planned sale mentioned above.

47.2 However, interoperability is important for targeted activities in business and to address specific issues, for example, at the infrastructure level. Verizon Media invests in open source technologies to ensure interoperability and standardisation outcomes at the infrastructure layers of its technology stack.

47.3 In addition, the IAB Europe Transparency and Consent Framework is an example of a scheme which helps enable the interoperability of user consent in the third party ad ecosystem. Through this scheme, compliance can be networked, allowing the cascading consents to facilitate the mobility of data through the ecosystem in a compliant way. When intermediaries and publishers can network consent, data can be safely shared among commercial partners and appropriate competitive alternatives to platforms in the third party ecosystem can thrive.

48. *Please explain the challenges that you anticipate would be associated with selecting and implementing standards that enable software to interoperate and data exchanges to occur between platforms, including the cost of implementing such a solution.*

48.1 Verizon Media believes this question is mainly asked with respect to Tumblr. Verizon Media has not considered the challenges of interoperability on Tumblr due to the planned sale mentioned above.

48.2 Verizon Media notes that the CMA may ask the same question with respect to Verizon Media's ad platforms. Verizon Media plans to respond to this question in the forthcoming RFI on advertising intermediation.

*Open data*

49. *Please explain whether you consider that the provision of access to data held by firms active in digital markets would support competition amongst providers of online search services and in digital advertising markets. In answering this question:*

(a) *Please specify and explain the benefits that you expect this data access could deliver, including the type of data that you consider would be most effective at delivering these benefits.*

(b) *Which platforms do you consider such data access should be applicable to in order to maximise its potential benefits?*

49.1 As noted above, such remedies can be effective in specific situations and to address specific and well-understood competition outcomes. The Statement of Scope, however, is unspecific about which competition barriers interoperability would address. Verizon Media would need to better understand the competition barriers in question before commenting in more detail. Such remedies should be limited to entities with “strategic market status”, rather than as a general intervention across the market. If applied more broadly across the market, legally mandated data openness or sharing is more likely to benefit large platforms, owing to their scale, existing advantages, and available resources to maximise the opportunity.

49.2 Whether or not the data is personally identifiable is also a consideration. Open data initiatives typically focus on anonymised or non-personally identifiable data. Personal and attributable data would be of more interest in the content and advertising markets but there are legal barriers to such sharing because of GDPR. Volunteered data and user-generated content may be good candidates for mobility but would require high levels of user consent to be commercially valuable.

49.3 More study is also likely needed by companies to determine what kinds of data in combination would add value for advertisers. In addition, as noted above, GDPR makes broader open data initiatives highly problematic for all parties. Effort should focus on more achievable and impactful remedies.

50. *Please explain the challenges that you anticipate would be associated with implementing such access. In answering, please describe the mechanisms through which access to data could be delivered, including:*

(a) *What form of openness or sharing would be required to achieve its benefits,*

(b) *How the appropriate type of data, which is most valuable to competitors, would be identified and selected,*

(c) *How privacy and consumer protection would be preserved, such as obtaining informed consent from consumers and ensuring compliance with GDPR, and*

(d) *Your expectation regarding the likely costs associated with implementing such access.*

50.1 Verizon Media understands this question concerns primarily social media platforms. Verizon Media has not considered the challenges associated with implementing open access on Tumblr due to the planned sale mentioned above.

50.2 Verizon Media notes that the CMA may ask the same question with respect to Verizon Media’s ad platforms. Verizon Media would plan to respond to this question in the forthcoming RFI on advertising intermediation.

***Business structure and management information***

51. ***# Please provide a corporate diagram of Verizon Media's group's legal structure, including in particular the joint ventures, associate companies and legal entities that are engaged in markets for the provision of digital advertising and user services in the UK. For each company/entity please indicate the country of incorporation and the percentage of share capital held in that company/entity.***

51.1 Please see the attached corporate structure chart showing the ownership of Oath (UK) Limited and Limited Oath (EMEA) Limited attached as **Annex 042**.

52. ***#Taking into account which businesses within Verizon Media have distinct management structures and how these are managed as a group, please also provide us with the group's latest organisational structure chart, showing the job titles and areas of responsibility of the relevant senior executives responsible in particular for the activities that are undertaken, directly or indirectly, in order to provide digital advertising and advertising-funded content to UK consumers.***

52.1 Please see the organisational structure chart attached as **Annex 044** and corresponding description of executives' areas of responsibility in **Annex 043**.

53. ***# Please provide Verizon Media's current annual plan including any narrative it contains regarding the provision of digital advertising and advertising-funded user services to UK consumers.***

53.1 Verizon Media does not have an annual plan, as it understands that term, for the EMEA region or specifically for the UK. Verizon Media has produced its current annual budget on a quarterly basis for 2019 attached as **Annex 050** - see columns N-R. Please note that these are management figures and cannot be tied back to annual reports provided in response to Question 54 and financial accounting figures.

54. ***If publicly available, please provide web links to Verizon Media's annual report and financial statements for the last three financial years. If not publicly available, please provide us with the full version of these reports as supplied to your shareholders.***

54.1 Oath (UK) Limited's financial statements are publicly available at <https://beta.companieshouse.gov.uk/company/03462696>.

54.2 Oath (EMEA) Limited's financial statements are publicly available at <https://search.cro.ie/company/ListSubDocs.aspx?id=426324&type=C>.

54.3 Verizon Media has provided copies of these statements attached as **Annexes 045-049**

55. ***# Please provide the full financial year-end management information packs covering the last three financial years for each of Verizon Media's business areas that are engaged, either directly or indirectly, in the provision of digital advertising or advertising-funded content to customers located in the UK in the form they are submitted to management. We would expect these management information packs to show the financial and operational performance of these business areas, together with any key performance indicators and management commentary on business performance.***

55.1 Verizon Media does not prepare year-end management information packs for the EMEA region or specifically for the UK. Verizon Media has produced financial year end management figures for 2017 and 2018 attached as **Annex 050**- see columns B-L. Please note that these cannot

be tied back to annual reports provided in response to Question 54 and financial accounting figures.

56. ***# Please provide monthly management information packs for the current financial year for the same set of business areas as identified in question 55, together with a budget/forecast to the end of the current financial year.***

56.1 Verizon Media does not prepare year-end management information packs for the EMEA region or specifically for the UK. Verizon Media has produced information relevant to the UK market pulled from operational weekly updates attached as **Annex 051-54**. This information is focused on in-quarter performance for Display & Video.

***Data / specified information request***

***Market data***

57. ***Please fill in the attached spreadsheet with monthly data for the last three calendar years in the fields indicated for<sup>11</sup>:***

(a) ***User activity on Verizon Media's social media services (tab 'Users (Tumblr)');*** and

(c) ***Verizon Media's owned and operated display advertising (tab 'Display advertising (VM prop)')***

57.1 Verizon Media produced the requested data on August 23 2019 in two separate spreadsheets for post-April 2018 data and pre-April 2018 data. A revised version of the pre-April 2018 data was produced on August 30 2019.

58. ***Please provide in a spreadsheet annual (UK) data for the last ten calendar years for the following<sup>12</sup>***

(a) ***the average number of monthly active users on Tumblr;***

(b) ***the total annual revenues from display advertising on Tumblr; and***

(c) ***the total annual revenues from display advertising on Verizon Media properties ('content').***

58.1 Verizon Media produced the requested data for Question 58(a) on August 23 2019 and for Questions 58(b)-(c) on August 30 2019.

Submitted 14 September 2019

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<sup>11</sup> Please provide revenue information based on billings addresses for advertisers.

<sup>12</sup> Please provide revenue information based on billings addresses for advertisers.

## **Exhibit 3**

*Privileged and Confidential: Contains Business Secrets*

VERIZON MEDIA

COMPETITION AND MARKETS AUTHORITY

DIGITAL ADVERTISING MARKET STUDY

RESPONSE TO REQUEST FOR INFORMATION DATED 11 OCTOBER 2019

Information highlighted in yellow is confidential, for the reasons set out in the attached confidentiality log.

***Background***

1. *Please provide an overview of the digital advertising services provided by your company, including how you would classify each of the services provided (e.g. Demand Side platform (DSP), Supply Side Platform (SSP), etc.), the main functions involved in each service and the types of customers each service typically attracts.*

**General background**

- 1.1 These responses are provided by Verizon Media EMEA Limited (formerly known as Oath (EMEA) Limited) and Oath (UK) Limited (collectively referred to for purposes of this response as “Verizon Media”). Verizon Media EMEA Limited is a company incorporated in the Republic of Ireland with registered company number 426324 and primary place of business at 5–7 Point Square, North Wall Quay, Dublin 1, Ireland. Verizon Media EMEA Limited is the provider of Verizon Media services in Europe, except as noted in the list of services provided in Verizon Media’s response to the CMA’s first request for information dated 1 August 2019 submitted on 14 September 2019 (“Response to RFI1”). Oath (UK) Limited is a limited company incorporated and registered in England & Wales with registered company number 03462696 and primary place of business at MidCity Place, 71 High Holborn, London, WC1V 6EA. Oath (UK) Limited provides the HuffPost UK service and also provides marketing services to Verizon Media EMEA Limited (the principal) to support Verizon Media EMEA Limited’s provision of services in the UK.
- 1.2 Verizon Media EMEA Limited and Oath (UK) Limited’s ultimate parent company is Verizon Communications Inc. (“Verizon”). These responses are not provided on behalf of Verizon or its direct or indirect subsidiaries in the United States. To the extent these responses relate to any Verizon entities in the United States, the information is provided to assist the CMA but Verizon Media notes that these entities fall outside of the scope of the CMA’s market study and its jurisdiction.
- 1.3 In response to the CMA’s document requests, Verizon Media has produced relevant UK documents identified by a reasonable search and, where Verizon Media considers it may be helpful to the CMA, US generated documents that address points relevant to the UK. These latter documents will contain some information and practices not relevant to the UK (in particular, because of the requirements of GDPR), but they are included to provide context.

**Overview of Digital Advertising Services:**

1.4 Verizon Media provides a range of digital advertising services, which have had different names over time as a result of acquisitions and consolidations (e.g., Adapty, BrightRoll, AdTech Marketplace, Millennial Media, ONE by AOL). These services were rebranded with the Oath brand in June 2017, and then with the Verizon Media brand starting in January 2019. Verizon Media is in the process of further consolidating these solutions, as set forth in Table 1. The services relevant to this RFI are included **Table 1**. Please see Verizon Media's Response to RFI1 for a description of other services, including RYOT and Flurry.

**Table 1 – Overview of Verizon Media's Digital Advertising Services**

Service	Platform Type	Main Functions	Customer Type
Verizon Media DSP	DSP	The platform enables advertisers and agencies to purchase digital advertising inventory across a range of advertising units (e.g., display, video, native, and audio) and devices made available through advertising exchanges and supply-side platforms. Verizon Media owned and operated inventory and third-party inventory can be purchased through this platform.	Advertisers and agencies
Verizon Media Exchange  (This is the demand focused side of the Verizon Media SSP, below.)	Ad Exchange	The Verizon Media Exchange is an online marketplace that connects buyers and sellers for the purchase and sale of advertising (e.g., display, native, and video formats) programmatically. <sup>1</sup> Verizon Media offers two exchanges:  (i) the Verizon Media Exchange which enables the purchase and sale of inventory for display advertising (note that based on prior acquisitions, Verizon Media currently operates three display exchanges, but these exchanges are provided under the Verizon Media Exchange offering); and  (ii) the Verizon Media Video Exchange enables the purchase and sale of inventory for video advertising.	Buyers (advertisers, agencies, agency trading desks, and demand-side platforms) and sellers (publishers and app developers)
Verizon Media SSP  (This is the publisher focused side)	SSP	This is a platform for sellers of digital advertising inventory (including websites, mobile applications, and other digital media properties) to sell their advertising inventory through exchanges to buyers, including advertisers, agencies, agency trading desks,	Publishers and app developers

of the Verizon Media Exchange, above.)		and demand-side platforms.	
Verizon Media Native	Ad Network	Verizon Media offers an ad network for native advertising inventory which enables buyers, including advertisers and agencies, to purchase native advertising units across all devices (e.g., Verizon Media owned and operated inventory and third-party publishers' inventory). Verizon Media Native provides a managed service, with buyers working with Verizon Media sales teams to manage advertising campaigns, and a self-serve solution, where advertisers, typically those with smaller budgets, can create their own accounts, view traffic, and manage their campaigns.	Buyers (advertisers and agencies)
Oath Ad Platforms Ad Server (note that Verizon Media no longer offer this product to new publishers since January 2019 and are shutting down the business [REDACTED]	Ad Server	This ad server was first used for standard display ads on desktop only. It has been offered separately from the SSP to which it was integrated. This ad server was offered to third party publishers but was also used to serve ads on Verizon Media owned and operated properties.	Publishers

2. *Please provide a brief overview of how your business has developed over time, including how it was started, any significant changes to its services or technological developments and any changes in ownership or acquisitions of other companies.*

2.1 In June 2015, Verizon Communications Inc. completed its acquisition of AOL Inc., a leader in digital content and advertising. In June 2017, Verizon completed its acquisition of the operating business of Yahoo! Inc., a leader in communications, digital content and advertising, and provider of search services. Verizon combined Yahoo's operating business worldwide with Verizon's existing media business, which included AOL's global operations and the content delivery platform of Verizon Digital Media Services, to create a new organization named Oath, which was rebranded Verizon Media in January 2019.

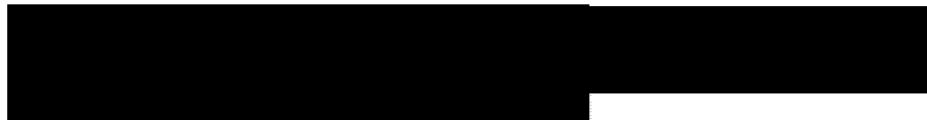
2.2 Verizon Media includes diverse media and technology brands and it provides global user facing services and business services, including communications services (e.g., Yahoo Mail, AOL Mail), digital content (e.g., Yahoo News, Yahoo Sport, Yahoo Finance, HuffPost), search services (although Verizon Media uses Microsoft's Bing search engine to power algorithmic

search results and search advertising), and various digital advertising services as set forth in response to Background Question 1.<sup>2</sup>

***Questions on competition in digital advertising***

3. ***What are the benefits and limitations, for both publishers and advertisers, of different types of programmatic advertising transactions, such as open auctions, private auctions, preferred deals, and programmatic guaranteed?***  
***(a) Is there a trend away from some transaction types and towards others? If so, what are the reasons for this trend?***  
3.1 Each type of programmatic advertising transaction offers its own advantages, disadvantages, and objectives. None of these transaction types is necessarily better than the other. For advertisers, the best type of transaction will be determined by campaign objectives and price sensitivity. For publishers, partnering with multiple third party ad platforms and selling across all types of transactions allows increased monetisation of inventory.  
3.2 There is a trend toward programmatic guaranteed, which provides advertisers with access to premium advertisers and ad inventory, as well as predictability in inventory and pricing. For publishers, it provides an opportunity to stand out as a source of supply and, hopefully, increase the value of inventory by differentiating it from other supply.
4. ***Please describe the current level of competition in digital advertising. (More specific questions on competition in the markets in which you operate are included later in this questionnaire) How, in your view, do the following factors affect competition in this sector? In your response please highlight any significant changes in the last five years.***  
4.1 Digital advertising encompasses a wide range of digital opportunities from social and search to display video and native advertising. With respect to the UK, there are competitive challenges from powerful market leaders that make competing in the digital advertising market difficult, in part because those market leaders hold significant amounts of data that cannot easily be replicated and which ultimately allow them to maintain or extend their market positions. This is discussed in more detail in response to Background Question 6, below.  
4.2 As explained in the Furman report, social advertising is dominated by platforms owned by Facebook; search advertising is dominated by Google. See The Digital Expert Competition Panel report ("Furman Report"), e.g., Figure 1.A and Para. 1.61. In social advertising, Snap and TikTok are trying to compete using their relatively large pools of audience data. In search, Microsoft (Bing) is looking to extend its global reach through partnerships, including its partnership with Verizon Media. Overall, Facebook and Google (and increasingly, Amazon) are gateways to display, video and native advertising, effectively control others' entry, with the rest of the industry competing (essentially with each other) for a share of the residual market, which Verizon Media estimates to be 20% of the total market. (See Furman Report, e.g., Paras 1.52 and 1.61.)

<sup>2</sup> Internal cross references will state the section followed by question number (e.g., Background Question 1, DSP Question 1, SSP Question 1, DMP Question 1, etc.).



*(a) The level of vertical integration by intermediaries along the supply chain;*

4.4 Presence on multiple levels of the programmatic advertising value chain may be necessary to compete given the multi-level ecosystems that others--especially companies with strategic market status--own, operate and control. It is also important that the integration between the different technologies along the supply chain works well. A company's presence on multiple levels is not therefore a concern per se and this allows challenger brands to compete with those with strategic market status and provide competitive alternatives in the market e.g.: for publishers who wish to work with multiple DSPs to maximise the value of their inventory and fund their content creation. Rather regulatory attention should focus on entities with significant market status in particular points in the ecosystem and on potential barriers to entry that this may generate. Please also see the response to Background Question 4(d) regarding interoperability, as well as the response to Background Question 6 below.

*(b) The access the intermediary has to advertising inventory (and the confidence in the quality of advertising inventory);*

4.5 Saturation of inventory is a key barrier to growth and therefore competition. Verizon Media aggregates the supply of inventory from both Verizon Media's content and communications brands and other premium publishers and promotes this to advertisers as a brand safe alternative marketplace to user generated sites. It is a key strategic goal of Verizon Media's business to build new partnerships that will grow the supply of inventory and make Verizon Media's platforms more attractive to advertisers, thus responding to advertisers' public calls for higher quality and more brand-safe inventory. The level of competition in this area depends on meaningful switching by advertisers in line with their public calls to action to intermediaries.

4.6 It is also important to consider the effect of players with strategic market status choosing to only make their supply available via their own SSP and limiting access via their own DSP. Buyers who wish to include this supply in their media plan have no choice but to use the linked DSP and will also concentrate campaigns via this DSP to all market supply to avoid inefficiency in duplicated set up, and campaign management. This can 'lock in' buyers by incentivising them to buy other media through the same DSP and disincentivising them using more than one DSP. This crowds out competing DSPs, even where their inventory access or functionality is of higher quality and responsive to advertisers' stated buying policies. The market would function differently - and more effectively - were this supply brought in to the open market, so that other DSPs can compete to trade with it.

*(c) The access the intermediary has to user level data;*

4.7 Access to user level data can affect competition in digital advertising services. High quality user level data enables advertisers to deliver targeted marketing messages to relevant audiences on the right device and within an appropriate environment, which increases the likelihood that such ads will be effective based on KPIs set by advertisers (e.g., driving users to an advertiser's website or store, purchasing goods online, downloading an app, signing up for a test drive, etc.). Ads shown to be effective increase an advertiser's ROI and are therefore more likely to be purchased by advertisers. Publishers also benefit by being able to effectively monetize their content, driving higher CPMs and delivering useful and relevant ads to their users.

4.8 Many consumers prefer advertisements targeted to their interests. See, for example, studies by the IAB (<https://www.iab.com/wp-content/uploads/2016/05/Value-of-Targeted-Ads-to-Consumers2.pdf>) and European Interactive Digital Advertising Alliance (<https://www.edaa.eu/wp-content/uploads/EDAA-Consumer-Research-How-EU-citizens-perceive-digital-advertising.pdf>). As explained in Verizon Media's Response to RFI1, personalised ads (i.e., those that include some level of targeting) are more attractive to potential buyers and therefore command a higher rate from advertisers. Based on internal estimates, Verizon Media [REDACTED]

4.9 The result is that intermediaries with good quality user level data are attractive to do business with from both the demand/advertiser side and the supply/publisher side. This creates a flywheel effect of encouraging publishers to work with such intermediaries, and with increased quality and quantity of publishers, coupled with quality targeting data, those intermediaries attract more business from the buy side.

4.10 Regulatory events such as GDPR can have an impact into the level of user data available across the landscape, where parties are not operating via shared schemes (e.g., IAB's Transparency and Consent framework ("TCF")) and a requirement to adopt a different approach is mandated by those with strategic market status. This concept is discussed in more detail in the response below to Background Questions 4(d) and 5.

*(d) Interoperability between the different levels of the supply chain (for example functionality, ability to match data, latency);*

4.11 Verizon Media noted in response to Question 47 of the Response to RFI1 that interoperability between ad intermediaries is important for targeted activities in business and to address specific issues, for example, at the infrastructure level. Verizon Media invests in open source technologies to ensure interoperability and standardization outcomes at the infrastructure layers of its technology stack.

4.12 Within Verizon Media's own ad intermediation business, interoperability across competitors can lead to more detailed coverage and insight of audiences and data, enhance interaction and allow leveraging of a common reporting system of user understanding across differing digital marketplace. For example, a shared understanding of user information across search, advertiser ad serving, and publisher ad serving is not possible without a "common currency" of interoperability. This can lead to barriers to entry, given the overall scale in multiple markets. A single view of the user would eliminate barriers for entry and the need for user matching, therefore reduced latency.

4.13 Competition between ad intermediaries is aided where ad intermediaries operate their systems in line with common technical standards. Competing platforms gain engineering and operational efficiencies by only having to invest in one standard. OpenRTB standard protocol and IAB Europe's TCF are examples of such standards. Competition is impacted where ad intermediaries with strategic market status develop competing standards or protocols and require their partners to invest engineering and other resources in adapting to their chosen approach. Where those same providers are unsuccessful in their rule-setting and later adopt the industry standard approaches, competitors have to invest resources a second time to change the technical interfaces with those providers. There are other competitive impacts where rule-setting is successful.

*(e) The transparency and functioning of auction mechanisms;*

4.14 Regarding the functioning of auction mechanisms, auction mechanics have evolved significantly over the past three years. In a first-price auction the buyer pays the actual price of the bid, whereas in a second-price auction the buyer pays £0.01 above the second highest bid. The industry has broadly moved from second-price auctions to first-price auctions in the UK, with Google Ad Manager auctions completing this transition this year. Verizon Media made this transition in May 2019. This has been driven in part to allow header bidding auctions to compete with primary ad server reserved lines.

4.15 This will enable some levelling of the playing field between providers. Until 2018, Google Ad Manager reserved a last bite right to inventory, enabling it to allow its own auction to clear an impression if it had enough price elasticity between its first price bid, and the clearing price achieved in other auctions via header or campaign lines. This was not signaled transparently to actors in the value chain.

4.16 Regarding transparency of auction mechanisms, some buyers are increasingly asking for transparency in fees. Verizon Media offers transparency in a number of ways, including Verizon Media's bid shading algorithm and Omniscope tool (see response to DSP Question 10(a)). Verizon Media [REDACTED] In a well-functioning market in which advertisers say they place high value on transparency, Verizon Media would expect such services to inform and guide buying decisions and encourage meaningful switching. However, Verizon Media does not have sufficient visibility of what information is shared between agencies and their advertiser clients in this regard. Verizon Media would caution though that, if fee transparency were to become a regulatory requirement, the focus would likely shift to specific percentages of underlying fees rather than on net revenue and overall benefit to the publisher. In this scenario, players with strategic market status would be able to undercut competitors and such intervention may serve to entrench market status rather than stimulate competition.

*(f) Any other significant technological developments or new products/services (please specify).*

4.17 As noted in Verizon Media's Response to RFI1, any change to browsers' neutral posture presents an existential threat to both competition in the third party digital advertising market and to the ability of digital content and services providers (particularly those without logged-in users) to generate revenues to fund their content production. It also interferes with consumer preferences which are recorded via cookies and therefore the ability of ad intermediaries to comply with GDPR.

4.18 Some browsers are not looking to change defaults applied to third party cookies but are exploring a migration away from cookies towards other approaches to provide user control and transparency.<sup>3</sup> These efforts are in their infancy but primarily focused at this stage on greater user control and transparency and preserving publisher revenues. The impact on third party ad intermediaries which compete with market leaders has yet to be determined. Where these browsers have significant market share, the impact could be significant. For example, the shift away from cookies could require competing ad intermediaries (who do not also operate a browser) to use other identifiers in order to continue operating.

4.19 There would be further competition impacts where an ad intermediary has strategic market status and also operates a browser. Finally, Verizon Media emphasizes that increased regulatory action favours intermediaries with strategic market status who can create their own compliant closed-model ecosystems, impacting competitors

<sup>3</sup> See, for example, <https://www.blog.google/products/chrome/building-a-more-private-web/> [http://services.google.com/fh/files/misc/industry\\_request\\_for\\_comment\\_v1.0.pdf](http://services.google.com/fh/files/misc/industry_request_for_comment_v1.0.pdf).

5. *What do you expect will be the main changes in how digital advertising is purchased/sold over the next few years?*
  - 5.1 Verizon Media expects that as viewing consumption changes, more digital advertising will be purchased via automated processes and additional channels and opportunities will be transacted programmatically, including audio, digital out-of-home (DOOH), and video via connected TV ("CTV") and devices.
  - 5.2 Changes to browser settings and privacy issues may also radically alter how the programmatic marketplace operates (see response to Background Question 4).
  - 5.3 In addition, Google is expected to join the IAB TCF v2.0 next year. TCF is a cross-industry effort to help those involved in the digital advertising industry meet the transparency and user choice requirements under GDPR. Google's adherence to TCF v2.0 will help GDPR compliance and interoperability between ad intermediation platforms and competitors with Google's suite of publisher products. Currently to receive Google demand, competing intermediaries must agree to Google's specific GDPR terms, such as its EU user consent policy (available at <https://www.google.com/about/company/user-consent-policy/>). The market would benefit if other leading platforms were to join TCF v2.0.

#### *Potential remedies*

6. *Are there any areas of digital advertising intermediation that would benefit from regulatory intervention or regulatory change? If so, please describe the areas and types of regulation that would be appropriate.*

#### **Specific guidance and interventions on providers that have "strategic market status"**

- 6.1 The Furman Panel recommended the creation of a "digital markets unit" to use tools and frameworks that will support greater competition and consumer choice in digital markets. Consideration should be given to allow challenger platforms to report potential anti-competitive practices by those with strategic market status for rapid investigation before lasting damage is done to competitors and the competitive landscape. This process should be designed with the resources and capabilities of challenger brands in mind. In particular, regulators would need to carefully balance the burden of information requests, particularly costly and time intensive document requests, on challenger brands with incentives to report potential competition concerns.
- 6.2 The Furman Panel also recommended codes which would govern the conduct of entities with "strategic market status." Regulators would need to ensure that the design and governance of the codes are not overly influenced by the platforms whose behaviour the codes are intended to oversee. There should be a role for challenger brands in informing the drafting process to avoid the codes being used to further entrench power of companies with strategic market status.
- 6.3 Laws limiting data "sharing" or "selling" benefit companies that already have large troves of data because they already have the data in contrast to their competitors who need to acquire data -- their fuel -- to develop competitive scale. Much of the time, these companies with large troves of data collect that data through their direct, first-party relationships with users. The value of inventory is connected to the identifiability of the consumer seeing the ad, and the richness of the information that can be connected to that identifiable user. Legislative initiatives - such as GDPR or broad data interoperability proposals - that seek to regulate "sharing" of data within the competing third party ad ecosystem undermine the ability of

competitors to the market leaders to acquire the data needed to fuel operations and effectively compete. While all data sharing should be done in a way that protects consumer rights, an outright restriction on these practices entrenches incumbent positions and strengthens strategic market status.

**Restraint by policy-makers in pursuing new policy and legislation which may hinder competition**

- 6.4 Market-wide data protection laws which stipulate consent as the only valid legal basis for cookies and ad personalisation benefit companies with large first party relationships and data sets. Remedies should forebear from recommending additional consent obligations on third party players and explore approaches that demonstrably level the regulatory playing field for competitors and do not disadvantage the competing third party ad ecosystem. In the longer term, this should include exploring other legal bases for processing data that do not hinder the competing third party ecosystem. In the short term, Furman Panel's recommendation that "A retrospective assessment of the impact of the GDPR would be a valuable exercise to ensure the regulations are operating as intended and are not unduly impacting competition" should be pursued as part of this market study. This will help identify areas of misalignment between data protection and privacy law.
- 6.5 Policy-makers should also examine the lack of flexibility in data protection law which DPAs claim does not provide them discretion to apply rules in a way that balances economic and individual interests and promotes innovation and competition in digital markets. As a consequence, DPAs are actively disengaging from discussions about the market impact of GDPR. Under this legal interpretation, a DPA could arrive at a decision with significant market impacts but government and other authorities with responsibility for the economic well-being of the UK economy would have no vires to intervene.
- 6.6 More generally, regulatory and legislative proposals should be technology neutral and business model neutral, and seek to solve for identifiable public policy issues. The current trend of using unrelated areas of regulation as a means to address competition issues has proved self-defeating by creating the greatest legal risk and compliance burden for competitors and favouring market leaders (e.g., GDPR). Likewise, the trend towards homogenising the sector has assumed that practices and problems of certain, market-leading, platforms are widespread and require market-wide regulation (e.g., Cambridge Analytica). Directing policy-development in this way means that the needs of the wider market and cumulative impact of regulation on competitors are frequently overlooked. Decisions about future policy should be informed by a competition impact assessment and focus on incentivising and rewarding good company practice. GDPR intended to stimulate competition for high privacy standards but players without strategic market status experience a revenue deficit for promoting high privacy standards.

**Monitoring actions of other intermediaries**

- 6.7 It is important that browsers continue to be neutral players in the digital advertising and content distribution value chain. Companies are forced to adapt to browser defaults set by firms who control access to this facility and this carries significant costs and imposes challenges to competing on the merits.
- 6.8 Any change to browsers' neutral posture presents an existential threat to both competition in the third party digital advertising market and to the ability of digital content and services providers (particularly those without logged-in users) to generate revenues to fund their content production and journalism. It also interferes with consumer preferences which are recorded via cookies.

6.9 Browser companies should not be able to determine public policy by setting standards in place of applicable law. When browser companies alter the defaults of their browser controls, or offer new functionality that serves to limit data collection, non-platform companies suffer. For intermediaries, the ability to gather data is undermined, as is their role as revenue drivers for publishers (and, indirectly, consumer choice of content). By limiting the fuel for third party competitors of platforms, market leaders benefit. See the response to Background Question 4(f) for background on the implications of moving away from cookies, towards alternative identifiers.

**Third party log in can impact the advertising ecosystem**

6.10 Third party log ins are used by a number of third parties but implementations can limit advertisers' ability to retarget ads on certain devices and have implications for the health of the third party ecosystem. This undermines the ability of advertisers to connect with audiences, publishers to monetize their sites, and publishers and ad tech companies to compete with market leaders.

**Consideration of buy-side remedies**

6.11 The buying power of advertisers and agencies has shaped today's digital advertising market. Government and the CMA should forebear from regulation and market-wide interventions to address advertiser concerns where there are already remedies in the market--e.g., abundant supply of ad inventory on curated content services as alternatives to user generated content sites, established industry-wide standards to combat fraud and support advertisers' brand safety policies, etc. Further regulation would only disincentivise investment in ad tech services and hold back competition in this maturing market, as well as the development of industry standards and self-regulation by competitors.

6.12 Focusing attention on remedies which encourage buyer switching are likely to have the most lasting impact on competition. For example, active support of high impact company and industry schemes which aim to raise standards within the ad intermediation sector would serve to drive quality and competition in the market to the benefit of both advertisers and consumers.

**Data portability, interoperability and open standards**

6.13 The Statement of Scope proposes data portability, interoperability and open standards as potential remedies. Such remedies can be effective in specific situations and to address specific and well-understood competition outcomes. The Statement of Scope, however, is unspecific about which competition barriers interoperability would address. The CMA would need to very clearly identify the competition barriers this remedy would address to fully assess the benefit of this remedy.

6.14 If pursued, such remedies should be limited to entities with "strategic market status", rather than as a general intervention across the market. If applied more broadly across the market, legally mandated data openness or sharing is more likely to benefit large platforms, owing to their scale, existing advantages, and available resources to maximise the opportunity.

6.15 As noted above, focusing attention on remedies which encourage buyer switching are likely to have the most lasting impact on competition.

**Requests for financial and management information ('off the shelf')**

7. **# Please provide the full financial year-end management information packs covering the last two financial years for those areas of your business that provide digital**

*advertising services covered by this information request. We would expect these management information packs to show the financial and operational performance of these business areas, together with any key performance indicators and management commentary on business performance. We are particularly interested in seeing the metrics you use to monitor your own operational performance relating to each of the services covered by this information request.*

- 7.1 Please refer to **Annex 050** produced with Verizon Media's Response to RFI1. As noted previously, Verizon Media does not prepare year-end management information packs for the EMEA region or specifically for the UK. Verizon Media have produced financial year end management figures for 2017 and 2018 - See columns B-L. Please note that these cannot be tied back to annual reports provided in response to Question 54 in Verizon Media's Response to RFI1 and financial accounting figures.

***Questions to Demand Side Platforms (DSPs)***

***Your customers and business model***

1. ***Using an Excel spreadsheet, please identify and provide contact details of the 20 advertisers or media agencies from which your DSP business has earned the highest revenues over the last 12 months; please provide details of the amount of revenue you generated from each of them.***  
1.1 Please see the DSP tab in the spreadsheet containing the requested information, attached as Annex 55.
2. ***Please describe the main types of transactions for the purchasing of advertising inventory facilitated by your company's DSP. Please include details of:***
  - 2.1 Our agency and advertiser buyers mostly use Verizon Media's DSP to purchase advertising inventory on a self-serve basis. Some buyers request that Verizon Media provides managed advertising services in connection with their self-service accounts. Separately, Verizon Media provides a managed media service that enables buyers to issue insertion orders that Verizon Media fulfills from publisher inventory ("Managed Services"). The transaction also includes negotiation of fees and details of services provided at no additional charge and those provided at the client's cost.  
***(a) each of the stages involved in the transactions;***  
2.2 When an agency or advertiser buyer wants to purchase ad inventory via the DSP, they will use one of the following: (i) an agency trading desk; (ii) an independent trading desk; (iii) an agency programmatic buying unit; or (iv) their own trading team, to access the DSP via a unique seat.  
2.3 Through this seat, the DSP user interface ("DSP UI") allows the buyer to: (i) view the availability and pricing of ad inventory available on the DSP; and (ii) purchase that ad inventory via the DSP. The buyer will input their targeting preferences, performance objectives and pricing rules into the DSP UI and this is applied to the ad inventory they want to run across. If audience segments are to be targeted, the buyer will also select those segments via the DSP UI. Such audience segments may be built or supplied through the Verizon Media Audience Builder or a third party data provider/DMP that is integrated into the DSP.  
2.4 When an SSP bid request is received by the DSP, the DSP will use the campaign parameters established by the buyer in the DSP UI to determine the campaign and return a bid to the SSP along with the creative asset location via OpenRTB. Verizon Media adheres to OpenRTB specification version 2.5, an open industry standard for communication between buyers and sellers, available at: <https://www.iab.com/guidelines/real-time-bidding-rtb-project>.  
2.5 When ad creatives are uploaded, they are run through the Verizon Media creative tester to ensure that all tags, links and images meet Verizon Media's internal policies. Where there is suspicion of fraud or where the advertiser/content does not meet the internal policies, these are flagged to the buyer and under certain circumstances the campaign is prevented from running.  
2.6 Private marketplaces ("PMPs") are similar but there is the additional targeting of a DealID.  
2.7 Where a buyer purchases ad inventory through the DSP on a programmatic guaranteed basis (Programmatic Guaranteed), which allows the buyer to purchase a guaranteed volume of

impression of Share of Voice at a price that is agreed with the publisher, this has a similar workflow. However, the buyer is prevented from layering on any form of targeting and the buyer negotiates volume, price and flight dates directly with the publisher.

2.8 Where a buyer is working with Verizon Media on a Managed Services basis, then Verizon Media may also use the DSP to fulfil that insertion order from publisher inventory in the DSP.

*(b) each type of party dealt with and the role they play;*

2.9 The parties involved and the roles they play include:

- (a) **Buyers:** Advertisers, agencies, agency trading desks and independent trading desks that have an agreement with Verizon Media to purchase ad inventory via an enterprise seat on the DSP.
- (b) **Data providers/DMPs:** Data vendors or data onboarders that have an agreement with Verizon Media to integrate their client data into the Verizon Media DSP in order to facilitate the ability for buyers to target third party or client first party audience segments.
- (c) **SSPs/ad exchanges:** Platforms that provide the ad inventory from publishers who wish to monetise their supply through connection to the DSP.
- (d) **Verification & measurement vendors:** Viewability, contextual, demographic, brand safety and fraud third party vendors that are integrated into the DSP to allow the buyer the choice of vendor (and standard) outside of what Verizon Media offers, against which the buyer can measure the DSP service.

*(c) the information that you require from advertisers to facilitate the purchase of ad inventory;*

2.10 In order to prepare a DSP contract for Verizon Media's clients to facilitate the purchase of ad inventory, Verizon Media requires the following information from the partner: full legal company name, company address, primary contact details, billing contact details, billing currency and email address for data protection enquiries and data subject requests.

2.11 Where a buyer is working with Verizon Media on a Managed Services basis, additional information relating to the media plan is also required, including but not limited to targeting, volume of media, budget, format type and/or format size, URL of landing page, outcome KPI, and KPI value.

2.12 Where the buyer purchases ad inventory through the DSP on a Programmatic Guaranteed basis, the following additional information is required: dates, volumes, budget, publisher, targeting, and ad format.

*(d) the information exchanged with ad exchanges/ad networks in bid requests and actual bids for ad inventory.*

2.13 The DSP is connected to ad exchanges and SSPs that facilitate the purchasing of ad inventory. The connection between the DSP and ad exchanges/SSPs is made via the OpenRTB specification and Verizon Media expects ad exchanges/SSPs to be at version 2.3 at a minimum. The OpenRTB specification allows for a programmatic on-the-spot auction, which is similar to how financial markets operate. The information that is passed from the ad exchanges/SSPs to the DSP in the bid request can include parameters referencing the site, location, content, user, and device.

2.14 Note that this describes how data is exchanged today within the OpenRTB protocol. Practices may change as a result of future enforcement and/or guidance by supervisory authorities with jurisdiction as set out in the GDPR's lead supervisory and consistency mechanism provisions.

2.15 In addition, the DSP engages in cookie syncing with SSPs, which is a process for mapping users from one system to another. Where cookie syncing has provided a user match, clients are able to overlay either their own first-party data, third-party data or Verizon Media data to only bid on those impressions that match the desired audience. Please see DMP Question 8 for more detail about cookie syncing.

3. *Please provide an overview of how you charge for the DSP services you offer.*

(a) *Please describe the main types of fees charged for the DSP services offered and provide an indication of the scale of these fees and roughly what proportion of the value of ads sold these fees constitute.*

3.1 For the DSP transaction, Verizon Media charges buyers the following costs, which can vary depending on the specific buyer and their spend:

(a) **Media Cost:** The total cost of Inventory purchased through Verizon Media's DSP as reported in the DSP UI.

(b) **Platform Fee:** [REDACTED]  
[REDACTED] of total value of ads).

(c) **Data Fees:** [REDACTED]

(d) **Management Fee:** If Verizon Media's buyers request managed advertising services in connection with their self-service account, Verizon Media also charge a Management Fee. [REDACTED]

(e) **Vendor Fees:** If Verizon Media's buyers opt-in to use certain third party vendor services in the DSP, Verizon Media also charges a Vendor Fee [REDACTED]

3.2 All these costs are disclosed to the buyer. Verizon Media's typical relationship in the UK is with an ad agency rather than an advertiser. Where Verizon Media's buyer is an ad agency, fees are negotiated with the agency and it is for the agency to share and agree fee information with its advertiser client.

3.3

[REDACTED] In addition, Verizon Media offer approved third party vendor solutions to Verizon Media's buyers at their cost, and the cost to the buyer is transparent to buyers in the DSP UI and in the invoice.

(b) *Apart from the fees described in response to question 3(a), do you generate any other types of revenue from providing DSP services? Please describe each of these sources of revenue (if any) and provide an indication of their scale and roughly what proportion of your annual revenue they constitute.*

3.4 No. As explained above, Verizon Media offers approved third party vendor solutions to its buyers [REDACTED]

3.5 Verizon Media also notes that whilst third party data is chargeable to the buyer, the rates are varied according to which market the buyer is based to ensure that it represents fair market pricing. [REDACTED]

3.6 Finally, where advertisers deliver over ad properties that are owned by Verizon Media, the cost of the inventory is revenue to the business. Where these are ad properties that are part of the Verizon Media SSP from a third party publisher, fees are charged as set forth in the response to SSP Question 3 below.

*(c) Please explain whether you offer discounts or rebates to media agencies or specific advertisers and, if so, how these discounts/rebates are determined.*

3.7 [REDACTED]

4. ***What are the main KPIs that are valued and monitored by your customers?***

4.1 Advertising customers record campaign success on a number of differing bases, from performance measures such as click through rate and attributed sales, to brand uplift via consumer studies. Digital advertising still relies on a lot of performance measures.

4.2 The KPI that holds value to a customer is determined by the business outcome that it wants to achieve. However, it is arguable that some KPIs have become less about measuring performance and more of a requirement to determine an ad placement's' value. For example, where proprietary technology is provided within the DSP, Verizon Media has observed an industry expectation to allow these to be monitored by third party vendors. These include viewability, demographic, installs, and audible and visible on complete ("AVOC").

4.3 The way in which advertisers measure the success of their campaigns is undergoing some change. For example, the Advertising Association's recent report, "Arresting the decline in public trust in UK advertising,"<sup>4</sup> led the UK's largest advertisers (via their trade group, ISBA) to make public commitments to drive adoption of the IAB Gold Standard, and to prioritise good practice on data use and other indicators when setting KPIs for campaigns. The WFA has tracked how top brands are changing their media management and buying practices.<sup>5</sup> Broadening KPIs beyond those set by market leaders will serve to open the market to ad intermediaries who can compete on privacy practices and value added services.

5. ***How do you differentiate the services that you offer from those of your competitors?***

5.1 Verizon Media differentiates its services from competitors in several ways. For example:

<sup>4</sup> See <https://www.adassoc.org.uk/policy-areas/report-arresting-the-decline-of-public-trust-in-uk-advertising/>.

<sup>5</sup> See <https://www.wfanet.org/news-centre/global-marketers-making-radical-changes-to-media-management/>.

- (a) [REDACTED] See Verizon Media's response to SSP Question 6 for more information about these tools. Verizon Media continues to invest in the development of industry standards (e.g., JS, IAB Gold Standard and TAG) and self-regulation in a range of areas including brand safety, fraud detection, viewability, etc.
- (b) It has developed a bid shading algorithm, which is globally enabled and [REDACTED]  
[REDACTED] Please see Verizon Media's response to DSP Question 10(a) for more details.
- (c) [REDACTED] Omniscope provides buyers with full transparency across the VM programmatic ecosystem and gives access to a transparent, multi-dimensional view of omnichannel supply paths allowing buyers to make decisions on their own supply path optimization. Please see Verizon Media's response to DSP Question 10(f) for more details.
- (d) Verizon Media's proprietary data gives access to buyers to better plan, target and find their customer audience. This can be used with all SSP/exchange connections but is limited by the need to be able to identify users via cookie syncing. Please see Verizon Media's response to DMP Question 8 for more detail about cookie syncing.
- (e) Unique supply from the owned and operated Native marketplace is only accessible via the Verizon Media DSP. These native ads are targeted and integrated within the content of the page. The native ads within this supply provide high performance and an opportunity for advertisers to engage with users in a creative and non-intrusive way. [REDACTED]

6. *We understand that it is common for advertisers or media agencies to have one of two broad types of contractual relationship with a DSP: either a 'disclosed'<sup>6</sup> relationship or a 'non-disclosed'<sup>7</sup> relationship, which differ in terms of the extent to which transaction, fee and other data are shared with advertisers.*

(a) *# Please describe the nature of the contractual relationships that you typically have with advertisers and with media agencies, including the rights of advertisers or media agencies to access transaction and fee data. Please provide template or example contracts to support this description.*

6.1 Verizon Media only has one contractual relationship for its DSP partners (being advertisers or agencies) in terms of the extent to which transaction, fee and other data is shared with advertisers. Verizon Media makes three main types of data available: 1) Verizon Media's proprietary data segments (i.e., Verizon Media does not share user level data with partners); 2) data from third party providers (e.g., eXelate); and 3) first party data, where a client chooses to introduce their data to the platform either via a DMP or drag and drop (Verizon Media does not charge a fee for this). In addition, Verizon Media makes contextual and brand safety data available from third party vendors (e.g., Double Verify and Integral Ad Science).

6.2 Regarding the above, Verizon Media's contract is transparent to Verizon Media's partner (be it an agency or advertiser), and states the applicable Platform Fee %, Data Fees and the Management Fee % (where the client requests Management Services). Advertisers negotiate

<sup>6</sup> In a disclosed model, an advertiser should be able to access its transaction data, fees, and costs across the supply chain.

<sup>7</sup> A non-disclosed model typically refers to an arrangement where an agent and/or intermediary purchasing media on an advertiser's behalf does not disclose the actual closing/winning bid prices of media purchased, instead providing only a final price, which includes margin and fees.

fees for each step or do so via their appointed ad agency and Verizon Media discloses these to the agency/advertiser that contracts with it. Verizon Media also detail to the buyer--in most cases, an agency--the services and tools provided at no additional charge [REDACTED] It is then for the agency to pass this information to their client, the advertiser.

6.3 Please see the following template contracts:

- (a) DSP Agreement, attached as **Annex 057**
- (b) DSP and Exchange Terms and Conditions, attached as **Annex 056**
- (c) Yahoo Application Programming Interface Terms and Conditions, attached as **Annex 058**

*(b) What are the advantages and disadvantages of a more 'disclosed' contractual relationship compared with a more 'non-disclosed' contractual relationship? Is a 'non-disclosed' contractual relationship generally the choice of advertisers or advertising intermediaries?*

6.4 As stated above in response to DSP Question 6(a), given that Verizon Media only have one contractual relationship for Verizon Media's DSP partners, this question is not relevant to Verizon Media's business and Verizon Media are not placed to respond from an informed position.

#### *Investments and innovation*

7. *Based on your company's experience, please identify:*

- (a) the necessary categories and scale of investments required to (i) build and (ii) maintain a competitive DSP;*
- (b) the ongoing costs categories and scale of on-going costs required to maintain a competitive DSP.*

7.1 Verizon Media's DSP is a global platform and as such requires investment to develop across areas that benefit pan-region and individual markets. In Verizon Media's experience, building and maintaining a DSP requires significant investment in the millions of pounds in multiple areas, including the following:

- Infrastructure costs (e.g., data centres, cloud costs, switches, routers, and networks)
- Licensing costs (e.g., software licenses, third-party vendor costs)
- Personnel (e.g., engineering, product management, sales, business development, client services, technical support, and marketing)
- Marketing costs (e.g., advertising, trade show sponsorships)
- Travel and expenses
- Business and finance-related services (e.g., Salesforce)

- Payment services
- R&D
- Trust and verification tools to protect against fraud and ensure brand safety
- Reporting and insights tools to ensure buyers are able to make appropriate decisions for campaigns as well as to provide transparency

7.2 In Verizon Media's view, the top four categories listed above are the most significant in terms of amount of investment.

7.3 In addition, in Verizon Media's view, other investments are required to build and maintain a competitive DSP. For example:

- Creation of a single facing omni-channel DSP where buyers can purchase inventory across all channels which users are consuming content, including mobile, desktop, video, audio, CTV, and DOOH.
- Creation of a simple workflow in order to allow buyers to purchase ad inventory in an efficient way.
- Compliance with GDPR and the development of any changes that the TCF v2.0 standard requires. Whether Google does ultimately adopt the TCF framework will have an impact on whether the work required will be amplified.
- Adapting the integration for access to market leader SSP due to Google's later adoption of the standard OpenRTB protocol for all SSP features.

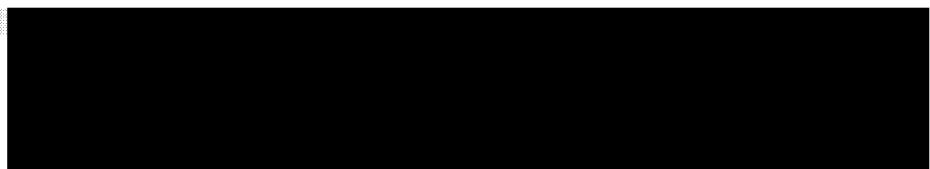
8. *To what extent are these investments and costs scalable, i.e. how do they vary with the level of activity on the DSP such as the number of advertisers, volumes of bids/transactions, number of ad exchanges or publishers dealt with?*

8.1 Certain costs are fixed and do not vary with the level of activity on the DSP, such as engineering and product resource costs for maintenance and feature development. However, this is impacted where non-standard integrations are required. Other costs will vary, such as costs relating to infrastructure (e.g., cloud services, QPS capacity, forecast sampling, data modelling), which will increase as volume increases.

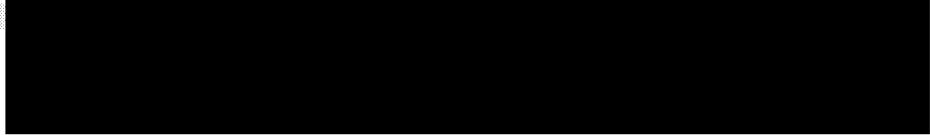
9. *Where not identified in your response to question 7, please set out how much your company has spent on R&D expenditure in developing aspects of its DSP services for each of the last three calendar years. Please identify what developments this expenditure related to and how it has impacted the services you offer.*

(a) *To what extent are these investments also beneficial for other services offered by your company?*

9.1



9.2



10. *Please explain the role of innovation in the development of DSP services.*

*(a) Please identify the most significant innovations in the last three years on your DSP.*

10.1 Verizon Media considers the below events to be the most significant innovations in the last three years on Verizon Media's DSP. For additional detail, see the DSP presentations produced as **Annexes 011** and **012** with Verizon Media's Response to RFI1.

#### **IAB Europe's TCF**

10.2 This industry wide framework helps enable the passing of valid user consent across the third party ad ecosystem. Through this scheme, compliance can be networked, allowing the cascading consents to facilitate the mobility of data through the ecosystem in a compliant way. When intermediaries and publishers can network consent, data can be safely shared among commercial partners and appropriate competitive alternatives to platforms in the third party ecosystem can thrive.

10.3 Verizon Media played a material role in developing this framework, as both a publisher and an ad intermediary. Verizon Media invested ahead of the market in TCF v1.0 and a consent management platform (CMP), in line with Verizon Media's interpretation of GDPR. The innovations around TCF v1.0 - and subsequently v.2.0 - were necessary to comply with GDPR, and TCF remains the only industry standard way for third party ad intermediaries and publishers to pass valid user consents through the ad ecosystem. The investment was necessary to continue to operate in the ad intermediation and digital publishing market in a post-GDPR world.

10.4 It remains Verizon Media's view that the market will ultimately align with this model as a result of GDPR enforcement and associated guidance, but Verizon Media has yet to realise the full value of this investment and see it drive meaningful changes in buying decisions. The decision by market leaders not to require partners to have a CMP also had an impact.

#### **Platform consolidation**

10.5 Verizon Media consolidated its five buy-side platforms--MillennialMedia adserver, JumpTap DSP, OneVideo, OneDisplay, and Brightroll--into a single global DSP. The consolidation was due to a company acquisition (please see Verizon Media's response to Background Question 2) and a decision to bring together the best of the DSP technologies.

10.6 This improved Verizon Media's DSP for buyers by creating a single UI for purchasing ad inventory across media channels with access to global supply. The investment was also necessary to have a single facing omni-channel DSP for clients to use and to consolidate product and engineering development resources and minimize maintenance of multiple stacks.

#### **Omniscope**

10.7 Verizon Media created a supply path insights tool called Omniscope. Omniscope was developed with the objective to provide buyers with more transparency on the supply path and show where they can buy each impression for the best price. 

10.8

[REDACTED]

[REDACTED]

Access to supply is commoditized with many domains being available across upwards of ten exchanges/SSP. This has created a cluttered landscape with huge overlap and duplication across domains. Verizon Media believes that its Omniscope is unique in the market and ensures that the auction is optimised in the interests of the advertiser.

#### Tools for emerging channels

10.9 Verizon Media developed targeting and measurement tools for audio, CTV, and DOOH.<sup>8</sup> These tools were developed as a result of buyers wanting to invest budgets and engage with users in these new channels where user adoption is growing, along with the shift of publishers moving to digital screens in order to increase yields. These tools allow buyers to simplify workflows within a single UI and have a unified campaign budget, reporting management, and universal frequency capping through a single view of a user.

10.10 With buyers looking for efficiencies in their activations this development was also to answer an increasing shift in the market away from specialist single channel DSPs to omni-channel DSPs.

#### Bid shading algorithm

10.11 Verizon Media created a bid shading algorithm, [REDACTED]

[REDACTED] This was an internal development driven by the shift in publishers moving to first-price auctions, with the purpose of ensuring a fair and transparent marketplace. This has become a necessity as AdX announced they would be moving completely to first-price auctions by the end of 2020.<sup>9</sup>

10.12 Bid shading is a machine-learning algorithm that takes into account all of the targeting variables to determine by how much to shade or reduce the bid. This is dependent on SSPs being transparent with the auction type in the bid request but also on the DSP applying ongoing analysis to identify any non-transparent first-price auctions. Verizon Media declares the auction type in its exchange's bid requests. As well as providing transparency and controls around the auction type, the DSP provides full transparency as to the cost savings produced via bid shading which is fully accessible to the buyer via reports within the UI. Verizon Media does not believe in marking Verizon Media's own homework without providing transparency to the buyer.

***(b) Please explain how these innovations have impacted the services that you provide as a DSP and improved the experience of advertisers.***

10.13 Please see the response to DSP Question 10(a) above.

<sup>8</sup> For more information regarding CTV and DOOH, please see: <https://www.broadbandtvnews.com/2018/02/28/connected-tv-advertising-grows-in-europe/> and <https://content-na1.emarketer.com/uk-digital-out-of-home-advertising>.

<sup>9</sup> See <https://adage.com/article/digital/google-adx-moving-a-price-auction/316894#targetText=Under%20a%20plan%20announced%20Wednesday,the%20%2448%20billion%20programmatic%20landscape.>

*(c) How did these innovations come about? Were they a result of internal developments, acquired from third parties or the result of a change in ownership or an acquisition of another company?*

10.14 Please see the response to DSP Question 10(a) above.

*(d) Please explain the main drivers of these innovations; for example, are they the result of new technology, wider market developments, in response to customer requirements or in response to specific changes in the competitive environment (such as new entry, market consolidation or innovations made by direct competitors)?*

10.15 Please see the response to DSP Question 10(a) above.

*(e) Are there any significant innovations that you have considered over the past three years but chosen not to pursue? What was the impact of these decisions on the services your DSP provides? Were the decisions not to pursue innovations beneficial or detrimental for your DSP services?*

10.16

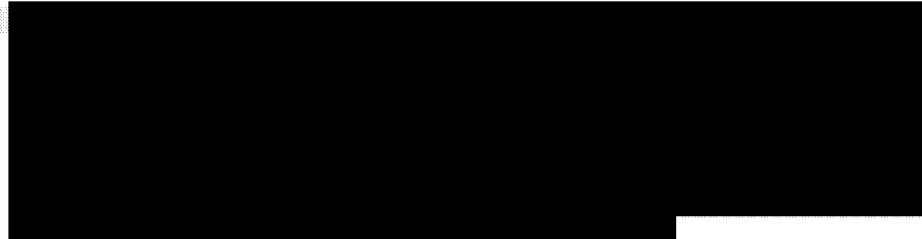


*(f) How does your company anticipate that DSP services will change over the next three years?*

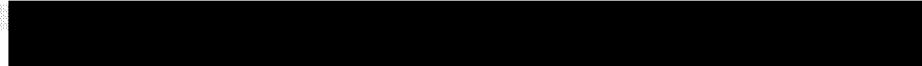
10.17



10.18



10.19



**Data**

11. **What are the main types of data that are used in providing your company's DSP services (for example user data, advertising exposure data, other)? For each type of data please:**

11.1 Our DSP is a complex piece of technology that uses many data points for a variety of purposes. Verizon Media have tried to simplify this by breaking the data down into: (1) input data; (2) data processed within the DSP platform, which is not shared with customers; and (3) output data.

**Input data**

11.2 On the supply side, Verizon Media's DSP receives data from both Verizon Media's owned and operated websites/apps, and from third party supply sources (which includes publishers that are directly connected to Verizon Media via Verizon Media's SSP, and publishers whose data Verizon Media receives via third party SSPs). This data will often be supplied in order to transact on a real-time bidding basis and will be consistent with OpenRTB specs, including IAB TCF signals. Such data may include device level data, such as device make, model, operating software, locale, etc.

11.3 On the demand side, an advertiser may onboard its own first party data onto Verizon Media's ad platforms so that it can use these data via Verizon Media's DSP. This could include lists of device identifiers or hashed email addresses.

11.4 Advertisers may also choose to use Verizon Media's proprietary pixel, often referred to internally as DOT, which collects data from advertisers' websites. DOT pixel returns data to Verizon Media's ad platforms, which is used for a number of purposes that benefit advertisers choosing to use the pixel, including attribution and measurement (please see response to DSP Question 11(b) for further details).



11.5 Verizon Media also has syndicated audience data from third parties that are available for use by Verizon Media's advertisers for targeting. There are a large number of these audiences and they could include, as examples, segments based on interests, market behaviour, demographics, and past purchases.

11.6 Campaign and performance data will be generated in connection with campaigns run via Verizon Media's DSP. This could include number of impressions served, impressions clicked on, and flight dates and times.

**Data processed within the DSP platform, which is not shared with customers**

11.7 Our DSP will use the data it collects and receives to facilitate the purchase of ad inventory for Verizon Media's buy side customers. It will process the raw device level data that is received from publishers and SSPs and match that to campaign parameters that have been input by buy side customers. The DSP does not share device/user level data with buyers when undertaking this activity.

11.8 Data will also be used on the DSP to measure campaigns and to report on campaigns.

**Output data**

11.9 The output data is principally in the form of measurement and reports (e.g., total number of impressions, click through rate, financial data/pricing, etc.). The data Verizon Media shares with partners is aggregate; Verizon Media does not share user level data with buyers.

*(a) Identify the categories of data that are included (e.g. for user data this might include demographic, interests, etc.)*

11.10 Below are the main categories of data that are used by the DSP:

- Demographic (declared and modelled age and gender)
- Interest
- Purchase intent
- Location
- Contextual relevance
- Income
- Consumer spend levels
- Purchase receipt
- Search
- Domain
- Retargeting
- Mail retargeting
- Predictive segments
- Look-a-likes
- Household and lifestage
- Lifestyle
- Advertiser first party data (i.e., customer database/CRM)

*(b) Identify the main sources of the data and for each source describe how the data is collected, including how consumer consent is secured, any costs associated with acquiring the data and any restrictions on the use of the data.*

11.11 This is 'input data,' as detailed in Verizon Media's response at the beginning of DSP Question 11.

**Data received from Verizon Media owned and operated properties**

11.12 This data is collected under Verizon Media's privacy policy, with transparency provided directly to users by Verizon Media and any required user consents obtained by us. Consent is typically collected via Verizon Media's consent interstitial. Certain uses of data may not require user consent, as legitimate interests or performance of a contract may be the applicable legal basis under GDPR.

11.13 [REDACTED]

11.14 The restrictions on how Verizon Media can use this category of data are as set out in Verizon Media's privacy policy, as influenced by parameters established via user consents, and in accordance with user controls and choices (e.g., those exercised via Verizon Media's Privacy Dashboard).

**Data received via DOT pixel**

11.15 Data is received from advertisers' websites if the applicable advertiser chooses to deploy Verizon Media's DOT pixel on their site(s). Such data is used for attribution, reporting, measurement, optimisation, advertiser retargeting, predictive audiences, and look-a-like modelling.

11.16 As DOT is deployed directly on an advertiser's website, the applicable advertiser using DOT is responsible for providing users with transparency and obtaining any necessary user consents. Verizon Media will not share disaggregated DOT pixel data with any other advertisers nor use it for the benefit of any other specific advertiser without the advertiser's consent.

**Data received from third party publishers and SSPs**

11.17 Data is collected via publishers' websites/apps, usually using cookie/tag based technology or via a Software Development Kit (SDK). The SDK may be Verizon Media's or a third party's. This process is detailed in response to SSP Question 2(a).

11.18 Where data is received from or via a third party, Verizon Media requires that the applicable third party provides users with appropriate transparency regarding data usage and obtains any necessary user consents. This typically involves using the IAB TCF, which provides for a defined set of processing purposes and a technical mechanism for sharing consent status with participating companies.

***(c) Provide details of how the types of data are used in the services that your company offers as a DSP, such as audience targeting and managing bids for advertising inventory on behalf of advertisers.***

11.19 The data is used for the following primary uses. All of this may be using advertiser data, Verizon Media's owned data, or third party data:

- (a) **Targeting:** Advertisers can pick audiences that they want to show the ads to.
- (b) **Measurement:** Advertisers want to measure the impact of the ads shown, based on their goals (e.g., brand awareness, site visitation, and resulting sales/return on advertising spend ("ROAS").
- (c) **Insights:** Advertisers may want to understand the demographics, interests, and behaviours of their customers, their competitors' customers, and other people who were exposed to their ads.

*(d) Provide information on how different categories of data affect the value of advertising inventory, highlighting which categories of data are most valuable and why.*

11.20 There is no single straightforward answer to this question that can be generalised across advertisers. Depending on what the goals of the advertiser are, they may value different types of data differently. Verizon Media makes the data available for use by the advertisers, and they make the decision on whether to use it or not based on how they value it. However, while an advertiser may or may not think any particular type of data is valuable, the value of user level data in online advertising data is very significant and the vast majority of online ads use data for targeting, measurements, and insights.

*(e) How does your ability to access different types of data compare to other companies who offer DSP services? How does this impact your company's ability to compete as a DSP?*

11.21 The mechanisms Verizon Media uses are similar to other DSPs in the market. However, Verizon Media's ad systems are differentiated because Verizon Media does not make Verizon Media's owned data available for syndication or use by other demand platforms apart from some very limited exceptions.

12. *Over the past three years, how has your company's ability to access different types of data changed? What were the reasons for these changes (for example, the introduction of General Data Protection Regulation)?*

12.1 The entry into force of GDPR has radically reshaped how ad intermediaries, including Verizon Media, access and process personal data. Verizon Media played a material role in developing the IAB TCF. Verizon Media has invested in engineering, legal and policy resources in order to support this framework and integrate it into Verizon Media's platforms. This effort extends to new data processing agreements with all publishers, DSPs and data providers, and new internal processes to support GDPR including appointment of a Data Protection Officer.

12.2 Inconsistency in how GDPR was implemented by Verizon Media's partners and competitors has also had an effect. For example, Google chose to implement a GDPR solution outside the IAB TCF. This has led to challenges in terms of gaining and sharing consent from a publisher for Google demand on third party ad technology.

[REDACTED] Verizon Media has also observed that many third party data brokers have either ceased to exist in the EU, or have realised diminished scale due to consent requirements.

12.3 Finally, the browser shift towards differential treatment of third party cookies has impacted the type of targeting that clients have been able to do on Firefox and Safari, due to their default of blocking the use of certain data processing practices. Limitations on these browsers have provided buyers with reduced targeting capabilities. As the browsers have a low combined Share of Voice ("SOV") within the UK market, buyers' spend has shifted to other market leading browsers. The move by the browser with the greatest market share to follow with their own controls around identification of third party cookies may result in reduced scale for some types of data targeting, possibly starting in early 2020.

13. *With regard to user targeting:*

*(a) What user targeting options do you make available to advertisers?*

13.1 Verizon Media provides the following targeting options: (1) geo targeting; (2) contextual targeting, using industry solutions such as Oracle's Grapeshot; and (3) user segmentation targeting, based on categorising users by data collected on Verizon Media's websites, from Verizon Media's registration processes, from third parties from whom Verizon Media licenses data, and from clients and their CRM databases. The use of data within these practices is compliant with Verizon Media's privacy policy and Verizon Media's interpretation and implementation of the GDPR.

13.2 Verizon Media has robust ad policies which restrict some types of targeting. For example, Verizon Media is a member of the EDAA which requires signatories to refrain from some behavioural advertising practices.

*(b) Do these options vary for different advertisers, the exchanges which are used and the websites the ads are appearing on and, if so, what are the reasons for this?*

13.3 No. All of Verizon Media's targeting solutions are available to all customers. Some customers, however, do request custom targeting solutions designed for their specific campaign requirements.

*(c) How do the targeting options impact bidding strategies, including the CPM/CPC that is bid?*

13.4 Buyers are able to choose which billing metric to use with restrictions based on channel type rather than targeting. For example, Cost Per Completed View ("CPCV") is only available on Video supply as it is related to the completion of the video. Buyers have the option to bid on either second-price or first-price supply as a targeting option and determine their max bid based on their own bidding strategy. A bid shading algorithm is globally switched on in the DSP to ensure that buyers are protected from overpaying when running on first-price supply.

*(d) How does your DSP ensure that adverts appear in front of the correct target audience?*

13.5 Verizon Media provides technical implementation with industry standard validation/verification solutions in order to measure delivery accuracy. For example, with verification partner Nielsen Digital Ads Ratings (DAR) Verizon Media can measure age and gender delivery. Nielsen DAR's age and gender data is provided in partnership with Facebook. In addition, Verizon Media's DSP uses the OpenRTB protocol to match campaigns with the targeting criteria to the parameters that have been passed in the bid request.

*(e) What types of data do you use in user targeting, how are they used to target ads, what are the sources of this data and are there any restrictions on its use?*

13.6 Verizon Media uses several types of data for user targeting, including age, gender, interest, purchase intent, location, and contextual data. Please also see the response to DSP Question 11 above.

13.7 Verizon Media's ad platforms are connected to:

- Verizon Media's first party data assets (e.g., consented registration data, browsing data, and geographic data).
- DMPs which allow clients to (i) use their own data (i.e., first-party data), and/or (ii) use data provided by third parties (i.e., third-party data) as part of their campaigns.

- Data broker DMPs which allow clients to use third party data for targeting.

13.8 All uses of personal data require a valid legal basis under GDPR.

*(f) To what extent do advertisers value the ability to target different user segments and how is this reflected in the bids they make or fees they pay? To what extent are advertisers willing to pay more, either in terms of CPM/CPC or higher fees, to increase the likelihood of correctly targeting specified users or user segments?*

13.9 The value of an impression is relative to the auction density, and is dependent on both Verizon Media's own DSP competition as well as other DSPs that are bidding on the same impression. Advertisers are willing to pay more where they determine that the impression holds incremental value either from an audience match rate or content environment.

13.10 As explained in Verizon Media's Response to RFI1, based on internal estimates, Verizon Media [REDACTED]

#### ***Auctions***

14. *Please identify each of the main ad exchanges/ad networks through which your DSP purchases ad inventory.*

14.1 Verizon Media's DSP purchases ad inventory from the following main ad exchanges/ad networks:

- AdX
- Verizon Media Exchange
- OpenX
- One by AOL:Display
- Verizon Media Native
- Microsoft
- Bidswitch
- Teads
- Pubmatic
- Appnexus
- Rubicon
- Freewheel

- Index

***(a) Describe the role played by each of these and the process by which ad inventory is purchased/allocated (e.g. direct purchase, real time bidding, etc.).***

14.2 Please see the response to DSP Question 4.

14.3 The SSPs/ad exchanges and the DSP are connected to each offer supply which is deemed valuable to the buyers, either through volume, unique domains, unique formats, emerging channels (e.g., native, CTV, DOOH, Audio), high user match rate, or are requested due to local market dynamics by the buyer. Where direct integrations are not considered feasible due to engineering resources, BidSwitch is used. Bidswitch is a middleware between DSP and SSP to have a fast track connection to new SSPs. All connections are via the OpenRTB protocol and are transacted through real-time bidding. Where supply for VOD Broadcasters and DOOH requires publisher side creative approval, there can be a delay.

***(b) Where an auction process is used in the purchasing or allocation of ad inventory, please briefly set out your understanding of the main elements of how the process works, including pricing rules and other elements that are used in the auction process, such as quality/relevance scores.***

14.4 In short, Verizon Media evaluate each bid request to see which advertiser's targeting and pacing criteria per line item are a match. If line item is matched, Verizon Media determine a price. The highest price wins Verizon Media's internal auction. The resulting bid is sent to the supply partner.

***(c) Please describe any significant changes to the auction processes that have taken place over the last three years and explain what you consider the impact of this to be on your ability to operate as a DSP.***

14.5 The industry has been moving from second-price auctions to first-price auctions. This has caused Verizon Media to shade Verizon Media's bids using the bid shading algorithm.

14.6 GDPR has limited Verizon Media's ability to fully utilize Verizon Media's targeting data in the UK. For example, Flurry data is no longer available because Flurry solely operates as a processor in the EU on behalf of third-party app developers, which has had a detrimental impact on mobile targeting. Browser restrictions in using third party cookies has also limited Verizon Media's ability to fully utilize targeting data.

15. ***Are the auction processes offered by the ad exchanges/ad networks with which you interact sufficiently transparent? Do you have a sufficient understanding of the auction processes to be able to effectively execute your role as a DSP?***

15.1 The auction processes offered by the SSPs with which Verizon Media interacts is sufficiently transparent. For example, the auction type is transparent, undeclared first-price auction is disallowed, and dynamic floor prices which can drive prices up unfairly are also not allowed.

15.2 The OpenRTB protocol which Verizon Media uses to deliver the auction between buyer and supply is robust and allows Verizon Media to effectively execute Verizon Media's role as a DSP.

***(a) Has the level of transparency changed in the last three years? If so, how?***

15.3 There has been a significant shift towards transparency via industry initiatives led by IAB Tech Lab such as ads.txt declaration, which increases transparency in the advertising ecosystem.<sup>10</sup> Verizon Media supports industry initiatives over rights to sell inventory, such as pub sellers.json and supply object. Verizon Media Exchange declares the type of auction in its bid requests via an RTB flag (first price or second price).

*(b) What, if any, additional information would you like to have on the auction mechanisms? How would this affect your ability to operate as a DSP and the operation of the wider ad intermediary market?*

15.4 Verizon Media would find useful a consistent and industry supported user identifier that is privacy friendly, complies with applicable laws, and allows for utilization of targeting data. See Verizon Media's response to Background Question 4(f) for additional background.

*(c) Do you have any concerns that the outcomes of the auction process may be able to be manipulated or are otherwise unfair in any way? If so, please provide details of these concerns. Where available, please provide any evidence that you have to support your concerns.*

15.5 Verizon Media has had concerns in the past about market leaders offering their DSP a 'last look' in an auction, as such practices result in unfair outcomes for other DSPs. These practices came to an end in 2018.

*(d) What (if anything) do you do to disincentivise auction manipulation by the exchanges through which your DSP purchases ad inventory?*

15.6 Verizon Media uses supply path analysis to decide which exchange/domain combination to bid or block. The decision is based in part on the most direct and lowest cost supply path. Verizon Media [REDACTED]

16. *Please explain your approach to bidding on auctions. In your answer please also explain:*

*(a) How you and your clients decide on a bidding strategy, including how much to bid.*

16.1 Our basic bidding strategy is to bid on the best quality inventory at a price point that will yield the best return on ad spend for each of Verizon Media's advertisers. In some cases the publisher's floor price is sent with the bid request and this aids transparency.

*(b) What happens when more than one client submits a bid for the same impression or ad slot:*

*(i) How does your DSP decide which bid is submitted to the ad exchange? How are the various bids ranked?*

16.2 In the event that more than one client submits a bid for the same impression or ad slot, Verizon Media selects the highest bid and submit that bid to the exchange.

*(ii) Does your DSP ever submit more than one bid to the same exchange? If so, in what percentage of total ad impression/ad slots for which your DSP bid for over the past month did this happen?*

<sup>10</sup> See <https://iabtechlab.com/ads-txt/>.

16.3

[REDACTED] It is very difficult to estimate a percentage of how often this happens.

*(c) If the impression/ad slot is won by one of your clients, how does your DSP charge the client?*

16.4 Verizon Media charges transparent fees per the client contract, in addition to the actual cost of the inventory. The fees are not included in the bid price.

*(d) If a request for the same impression is received from multiple ad exchanges, how does your DSP decide to which ad exchanges to submit a bid? If a bid is submitted to more than one exchange, is it the same bid?*

16.5 As mentioned previously, Verizon Media uses supply path optimization to make decisions on which exchange/domain paths to bid. If Verizon Media receives the same bid request from multiple paths, depending on a number of factors, such as user match, Verizon Media may or may not bid on one or more of these requests.

*(e) In what form do your clients submit their bids (e.g. CPC, CPM, CPA)? In what form does your DSP submit bids to the ad exchanges? If the bids you receive from your clients and those you submit to ad exchanges are based on different metrics (e.g. clients submit bids based on CPC, while your DSP submits bids based on CPM) how does your DSP convert the bids? What data is used to determine the conversion rate?*

16.6 Clients submit bid price in CPM/1000. Verizon Media's DSP typically submits bids to the ad exchanges in CPM/1000, but this may vary depending on the SSP/ad exchange. Verizon Media may calculate a CPM value based on customer's goals, such as CPC or CPA.

#### **Competition**

17. *In your company's role as a DSP who do you see as your main competitors?*

17.1 Verizon Media's main competitors with respect to Verizon Media's DSP are:

- Google Display & Video 360 (formerly DoubleClick Bid Manager ("DBM"))
- Trade Desk
- Adobe
- AppNexus
- MediaMath
- A9 (Amazon)

*(a) What you see as the relative strengths and weaknesses of the DSP service your company offers (from the perspective of advertisers) compared to each of these competitors?*

- 17.2 Verizon Media considers the main strengths of Verizon Media's offerings the quality of inventory, auction transparency, and Verizon Media's strong commitment to addressing advertiser concerns about brand safety, fraud and measurement (Verizon Media provides many tools at no additional charge). Verizon Media [REDACTED] is an early adopter of industry standards. For example, Verizon Media was among the first 20 companies to adopt the IAB Gold Standard and it played a leadership role in developing the IAB TCF.
- 17.3 In addition, Verizon Media considers omni-channel innovation, proprietary data, device graph that is built off of deterministic first party signals from users who have opted in via TCF consent and unique supply from Verizon Media's owned and operated properties to be strengths of Verizon Media's DSP service.

17.4 [REDACTED]

17.5 [REDACTED]

*(b) How has your company adapted in response to competitors?*

17.6 [REDACTED]

17.7 [REDACTED]

*(c) How do you anticipate the competitive dynamics in the provision of DSP services might change over the next three years?*

- 17.8 Verizon Media expects to see consolidation in the DSP market as buyers seek to achieve efficiencies across buying channels. This will impact single channel specialist DSPs and those DSPs that do not have unique access to supply, data, or identity. Verizon Media anticipates that such consolidation also may lead to a continued trend of buyers decreasing the number of DSPs from which they buy. With the commoditisation of supply and the increased need for supply path optimisation, Verizon Media also expects to see an increased need for transparency across the supply path and fees. Verizon Media also anticipates cross-market pressures to create standards that apply to buying within a cookieless environment.

*(d) # Please provide any internal documents over the last three years which refer to your company's competitive strategy in the provision of DSP services.*

- 17.9 Please see the DSP presentations previously produced as **Annexes 011 and 012** and business objectives documents produced as **Annexes 031-034** with Verizon Media's Response to RFI1, some of which may not apply to the UK market specifically. In addition,

please see the supply path presentation attached as **Annex 059** and the DSP presentation attached as **Annex 065**.

18. *We understand that some DSPs allow advertisers to submit bids based on cost-per-click (CPC) or cost-per-action (CPA). Does your DSP allow advertisers to choose between cost-per-mille (CPM) and other bid formats? If not,*

(a) *Why do you not give this option?*

(b) *Do you think that this puts your DSP at a competitive disadvantage?*

18.1 Yes, Verizon Media's DSP allows advertisers to choose between cost-per-mille (CPM) and other bid formats.

19. *Please explain what you consider to be the impact of the following features on competition in the supply of DSP services:*

(a) *The scale of providers of DSP services;*

19.1 Verizon Media considers scale of supply and data to have a high impact on competition, as larger DSPs are able to set standards for features of the platform and share these fixed R&D costs among multiple buyers. For efficiency and to get a single view of the user, buyers are focused on those DSPs that have large reach and scale across omnichannel buys. These factors focus the market on an increasingly limited number of DSPs.

(b) *The level of vertical integration by providers of DSP services along the advertising intermediation supply chain;*

19.2 Please see the response to Background Question 4(a).

(c) *The access providers of DSP services have to advertising inventory (and the confidence in the quality of advertising inventory);*

19.3 Please see the response to Background Question 4(b).

(d) *The access providers of DSP services have to user level data;*

19.4 Please see the response to Background Question 4(c).

(e) *Interoperability between the different levels of the supply chain (for example functionality, ability to match data, latency);*

19.5 Please see the response to Background Question 4(d).

(f) *The transparency and functioning of auction mechanisms;*

19.6 Please see the response to Background Question 4(e).

(g) *The adoption of header bidding;*

19.7 The industry has moved from second-price auctions to first-price auctions in the UK. This has been driven in part to allow header bidding auctions to compete with primary ad server reserved lines. The adoption of header bidding has aided competition because the same supply is now available across multiple SSPs. Please refer to Background Question 4(e) and

SSP Question 10(c) for more information on how this has affected the playing field between providers. This has put pressure on DSPs to develop internal and client-facing SPO tools and to increase QPS capacities to ensure that they can respond competitively to all supply paths.

19.8 The adoption of header bidding has also led to the development of bid shading algorithms, which increase transparency in the marketplace when bidding on first-price supply.

*(h) Any other significant technological developments or new products/services (please specify).*

19.9 Please see the responses to Background Question 5 and DSP Question 10(f).

***Market data***

20. Please fill in the attached spreadsheet (tab 'DSP') with monthly data for the last two calendar years.

20.1 As per Verizon Media's covering email, this information is to follow.

***Questions to Supply Side Platforms (SSPs) and Ad exchanges***

***Your customers and business model***

1. ***Using an Excel spreadsheet, please identify and provide contact details of the 20 publishers from which your SSP / Ad exchange has earned the highest revenues over the last 12 months; please provide details of the amount of revenue you generated from each of them.***
  - 1.1 Please see the SSP tab in the spreadsheet containing the requested information, attached as Annex 055.
  2. ***Please describe the most 'typical' transactions for the selling of advertising inventory facilitated by your company's SSP / Ad exchange. Please include details of:***
    - 2.1 The most typical transactions by which Verizon Media sells advertising inventory are open auction sales and private marketplace ("PMP") sales.  
***(a) each of the stages involved in the transactions;***  
2.2 When a publisher's app or site has inventory to fill (e.g., when an end user views a page on a site, or an app, the blank space in which an ad can be placed), the publisher calls the SSP through a tag or through an SDK running within the app. The SSP receives the call and assembles a bid request (usually in OpenRTB format) that can contain certain information about the publisher, the page and the end user. The bid request is then sent by the SSP to the DSPs that are connected to it. Each DSP analyses the bid request using the campaign parameters established by the advertisers on that DSP and returns a bid to the SSP (usually the highest value placed on the bid request by the various campaigns) along with a tag or other means to call for the creative if that bid wins. The SSP gathers all of the bids and holds an open auction of these bids (previously, a second-price auction, but more commonly now, a first-price auction). Assuming the winning bid is above the previously established minimum bid set by the publisher (the "floor"), the publisher's site or app will deliver the creative tag to the end user's browser or app (along with all of the other content needed to display the page) and the end user's browser or app will load the creative.  
2.3 PMPs are similar, but the publisher has established a limited marketplace with only a handful of preferred advertisers in the marketplace, instead of the open marketplace of standard auction.  
2.4 Note, this answer assumes: a simplified marketplace in which there is no header-bidding, rebroadcasters, DealID transactions or other more complicated transactions; that the advertising inventory submitted by the seller has passed the quality checks applied by the SSP; and any necessary user consents (as likely indicated by an IAB TCF string) have been obtained.  
***(b) each type of party dealt with and the role they play;***  
2.5 The parties involved are DSPs, on which buyers (advertisers, agencies, and agency trading desks) organize the advertising campaigns they wish to run, which submit bids to SSPs for advertising space; and SSPs through which sellers (publishers) submit the inventory for sale and which analyse that inventory for quality.  
***(c) the information that you require from publishers to facilitate the sale of ad inventory;***

2.6 Verizon Media does not place requirements on publishers to deliver particular information. Verizon Media does, however, require publishers to obtain consent where needed for privacy purposes, and pass to Verizon Media a consent signal (ideally an IAB TCF string), where required. The publisher may deliver information such as a user identifier (i.e., a cookie or device ID when allowed to do so), location information (usually in a mobile context), and information about the page on which the ad will appear. While not a legal requirement, the IP address of the end user must be passed so that the ad can be delivered.

2.7 The amount of information delivered may affect how well publishers' inventory is monetized, or even if an SSP will transact that inventory. For example, if the publisher does not indicate that the end user has provided consent to use behavioural targeting, the SSP may not send the inventory out for bids because experience has shown that the bid responses will be below the floor.

2.8 See also responses to DSP Questions 10(a) and 15(c) with respect to transparency using ads.txt.

(d) the information exchanged with ad networks / Demand Side Platforms (DSPs) in bid requests and actual bids for ad inventory.

2.9 Verizon Media may provide certain bid request data to buyers, including various identifiers (e.g., cookie IDs, advertising identifiers, etc.), counts and characteristics of placements (including the content therein). Please see the OpenRTB specification<sup>11</sup> for information that can technically be provided in the bid request (although please note that GDPR and other legal and regulatory compliance affects what data is actually passed).

3. ***Please provide an overview of how you charge for the SSP / Ad exchange services you offer.***

3. *Please provide an overview of how you charge for the SSP / Ad exchange services you offer.*

(a) Please describe the main types of fees charged for the SSP services offered and provide an indication of the scale of these fees and roughly what proportion of the value of ads sold these fees constitute. Please specify whether and how fees differ for different types of transactions (e.g. open exchange, private marketplace deals).

3.1 Verizon Media charges a percentage of the advertising spend for the publisher's digital advertising inventory as a fee to use the Verizon Media SSP. [REDACTED]  
[REDACTED]  
[REDACTED] Verizon  
Media does not charge any other fees, and Verizon Media [REDACTED]

3.2 Generally, and with very limited exceptions, there is no difference in fees between open

3.2 Generally, and with very limited exceptions, there is no difference in fees between open market and PMP transactions.

(b) Apart from the fees described in response to question 3(a), do you generate any other types of revenue from providing SSP services? Please describe each of these sources of revenue (if any) and provide an indication of their scale and roughly what proportion of the value of ads sold they constitute.

3.3 No.

<sup>11</sup> See <https://iabtechlab.com/standards/openrtb/>.

*(c) Please explain whether you offer discounts or rebates to DSPs, media agencies or specific advertisers and, if so, how these discounts/rebates are determined.*

3.4



4. *# Please describe the nature of the contractual relationships that you typically have with publishers, including the rights of publishers to access targeting and transaction and fee data. Please provide template or example contracts to support this description.*

4.1



4.2 Regarding targeting data, Verizon Media does not provide that data because it would be unusual for a publisher to need (or even want) the targeting criteria advertisers are using for their inventory. Further, as an SSP, Verizon Media would not be privy to such information since targeting parameters are usually set in the DSP.

4.3 Please see the following template contracts:

- (a) Verizon Media Publisher Platforms Master Service Agreement, attached as **Annex 061**.
- (b) General Terms and Conditions, attached as **Annex 060**.
- (c) Monetization Schedule, attached as **Annex 062**.

5. *How do you compete as an SSP / Ad exchange? How do you differentiate your offer to that of your competitors?*

5.1

Verizon Media



*(a) How do you attract publishers to your platform? How do you encourage publishers to make more of their inventory available on your platform?*

5.2

Generally, publishers need to work with multiple SSPs to support different platforms, business processes, etc., but will limit that group to a smaller number of their top revenue generating SSPs. Verizon Media attracts publishers by



ad tech solutions, Verizon Media offers strategic partnerships encompassing wider services, including sales representation.

5.3 Advertisers and their demand (a key requirement for publishers) are attracted through DSP connections into Verizon Media's SSP. Advertisers may choose to select Verizon Media's [REDACTED]

*(b) How do you attract advertisers/DSPs to your platform? How do you encourage advertisers to spend more of their advertising budget on your platform?*

5.4 Verizon Media has dedicated sales teams that educate external DSPs and traders using DSPs regarding Verizon Media's media opportunities. Verizon Media attracts advertisers by offering the ability to target the rich audiences from an aggregated pool of trusted, premium inventory, which includes Verizon Media's owned and operated media and partner publisher inventory. Verizon Media markets this, with its value added services (e.g., [REDACTED] as a high quality alternative to social media and other audience platforms. Verizon Media [REDACTED]

*(c) What is the minimum 'critical mass' needed for an ad exchange to remain viable?*

5.5 It is difficult to answer this question in the abstract. Verizon Media has market mass created by Verizon Media's owned and operated brands, which are attractive to buyers. Therefore, in Verizon Media's view, Verizon Media's owned and operated brands are currently sufficient critical mass for an ad exchange. This could be different for other types of platforms (e.g., ad servers) and for other companies.

*(d) What are the main KPIs that are valued/monitored by your customers?*

5.6 The main KPIs that are valued/monitored by publishers using Verizon Media's SSP services are click-through rate ("CTR"), conversion of sales, return on investment ("ROI"), and viewability. Publishers also require competitive net yield (combination of low fee and high bid density), good client service availability (e.g., hours worked, response times), and low "bad" advertising (e.g., malware, misleading ads) served.

*(e) Which (if any) of your customers are particularly important to your exchange, in terms of their effect on your ability to attract other customers to use your exchange? What do you do (if anything) to attract and retain these customers (for instance, lower fees or even subsidies)?*

5.7 Publishers are attracted to Verizon Media's SSP because of the demand sources Verizon Media offers, not because of another publisher. Accordingly, Verizon Media does not consider any single customer to be particularly important to its exchange, in terms of the effect on Verizon Media's ability to attract other customers. Nor does Verizon Media subsidise any customers on its exchanges. However, access to particular demand sources is relevant.

5.8 Verizon Media does have customers with which Verizon Media has broader, multifaceted strategic partnerships that cover multiple services. Verizon Media [REDACTED]

6. ***How do you build trust on your Ad exchange?***

6.1 Verizon Media offers a number of solutions to build trust on its platforms, as described below. For further detail, please see the presentation on Verizon Media's advertising policy and industry standards produced with Verizon Media's Response to RFI1 as **Annex 041**.

6.2 Ad fraud, which involves intentional deception to misappropriate money from advertisers, publishers, consumers, or all of the above, is one of the main issues facing the digital advertising market. Verizon Media works actively to combat fraud on Verizon Media's platforms, using a number of internal processes, as well as proprietary and third party tools.

6.3 Verizon Media applies proprietary fraud filtration technologies on the supply and demand side:

- Standard blacklists: Continuously updated blacklists and of suspicious domains, apps and IP addresses inclusive of publically available lists of infringing websites.
- Real-time scoring: Monitors behavioural aspects of traffic to weed out fraud and invalid traffic.
- Client-side forensics: Custom JavaScript is included in every impression to review signals that could indicate fraudulent traffic.
- Supply transparency: Detects true-domains and prevents domain spoofing.
- Manual traffic review: Dedicated team of traffic analysts to continuously monitor traffic signals and block suspicious behaviour.
- Supply policy enforcement: Violation of supply partner policies warrants further manual review and supply banned, if required.

6.4 [REDACTED] and it continues to invest in the development of industry standards (e.g., JICWEBS, IAB Gold Standard and TAG) and self-regulation in a range of areas including brand safety, fraud detection, viewability, etc.

6.5 In addition to Verizon Media's own tools, it makes available added protection from leading anti-fraud and quality vendors to enable clients to choose the solution that best meets their needs. Advertisers may choose, for an additional fee, to deploy one of many additional third party tools for filtration and measurement of fraud. Approved vendors include Grapeshot, MOAT, and Double Verify. This allows advertisers to 'mark Verizon Media's homework'.

6.6 Verizon Media automatically does not charge advertisers for any fraudulent impressions identified by Verizon Media's proprietary tool. In addition, Verizon Media will credit back the value of fraudulent impressions if a discrepancy of >5% is reported between Verizon Media's proprietary tool and a third party tool deployed by an advertiser.

(a) ***What rules do you set for participation on your Ad exchange? How do you monitor and enforce these rules and what (if any) are the penalties for breaking them?***

6.7 Publishers on Verizon Media's platforms agree to its rules as to prohibited content (e.g., violent content, promotion of banned substances), content quality guidelines (e.g., may not publish excessive, misleading or inappropriate content to impact ad selection), and other policies. Please see the policies attached as **Annex 066**. Failure to abide by the terms may result in Verizon Media withholding payment for a placement, or termination for repeated or significant violations.

6.8 As described in more detail in **Annex 041**, Verizon Media verifies supply through publisher, app, and site onboarding processes. In addition, Verizon Media conducts regular manual inventory checks to make sure that traffic meets Verizon Media's content quality standards and to monitor for fraud and other violations of Verizon Media's terms. In addition to manual review, advertising is subject to screening via automated systems such as Verizon Media's celebrity detection tool which scans for misuse of celebrity images in advertisements.

*(b) How (if at all) do you screen participants, in order to maintain or promote the quality of the bids and offers on your Ad exchange so that you can attract and/or retain customers? Do you operate any verification system to identify whether advertisers and publishers are who they claim to be?*

6.9 As part of Verizon Media's onboarding process, new publishers go through a manual audit and approval process, and new apps and sites go through authentication checks. With respect to advertisers, each bidder is credit checked to ensure they will pay, and credit status and payments are regularly monitored.

*Investments and innovation*

7. ***Based on your company's experience, please identify:***

***(a) the necessary categories and scale of investments required to i) build and ii) maintain an SSP / Ad exchange;***

7.1 Please see the response to DSP Question 7(a), which is largely the same for SSP/Ad exchange platforms.

***(b) the ongoing costs categories and scale of ongoing costs required to maintain a competitive SSP and/or Ad exchange.***

7.2 Please see the response to DSP Question 7(a), which is largely the same for SSP/Ad exchange platforms.

8. ***To what extent are these investments and costs scalable, i.e. how do they vary with the level of activity on the SSP / Ad exchange such as the number of advertisers, volumes of bids/transactions, number of publishers dealt with?***

8.1 Please see the response to DSP Question 8, which is largely the same for SSP/Ad exchange platforms.

9. ***Where not identified in your response to question 7, please set out how much your company has spent on R&D expenditure in developing aspects of its SSP / Ad exchange services for each of the last three calendar years. Please identify what developments this expenditure was related to and how it has impacted the services you offer.***

***(a) To what extent are these investments beneficial for other services offered by your company?***

Please see the response to DSP Question 9, which is largely the same for SSP/Ad exchange platforms.

10. ***Please explain the role of innovation in the development of SSP / Ad exchange services.***

***(a) Please identify the most significant innovations in the last three years on your SSP / Ad exchange.***

10.1 The most significant innovations in the last three years for Verizon Media's platforms include: header bidding, first-price auction, investments in brand protection and creative screening, support for Native formats and Digital Out of Home ("DOOH"), and Private Marketplace ("PMP") support, programmatic guaranteed support, and yield management capability.

***(b) Please explain how these innovations have impacted the services that you provide as an SSP / Ad exchange and improved the experience of advertisers.***

10.2 These services have improved liquidity and scale in the marketplace. Header bidding has enabled a wider pool of inventory to be available to bid against and allowed more centralised programmatic management of campaigns. Additional channels such as native have allowed a broader range of formats and opportunities. Yield management capabilities have enabled publishers to make more informed decisions around how to price inventory and maximise return from the inventory created. Enhanced private marketplaces also support publishers in differentiated sales to advertisers and agencies.

***(c) How did these innovations come about? Were they a result of internal developments, acquired from third parties or the result of a change in ownership or an acquisition of another company?***

10.3 These innovations came about due to a range of factors:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

10.4

[REDACTED]

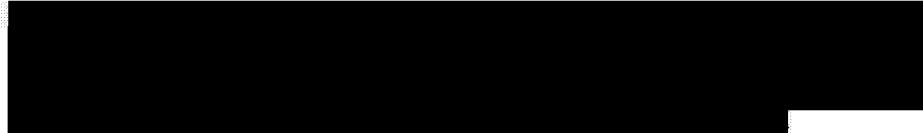
10.5 Header bidding, specifically, grew in part as a response to the significant market power of Google Ad Manager. It was an attempt to level the access between external SSPs and Google Ad Manager/Adx, although it has partly led to commoditization of external SSPs and the proliferation of duplicated inventory from publishers across SSPs.

***(d) Please explain the main drivers of these innovations; for example, are they the result of new technology, wider market developments, in response to customer requirements or in response to specific changes in the competitive environment (such as new entry, market consolidation or innovations made by direct competitors)?***

10.6 Please see the response to SSP Question 10(c) above.

*(e) Are there any significant innovations that you have considered over the past three years but chosen not to pursue? What was the impact of these decisions on the services your SSP / Ad exchange provides?*

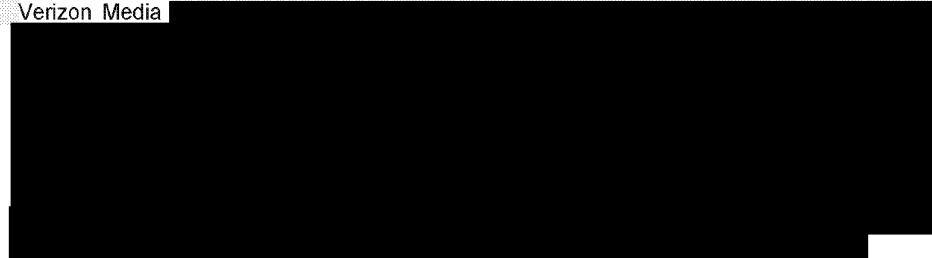
10.7

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*(f) What are the main innovations your company anticipates for your SSP over the next three years? How will these impact the services offered by your SSP / Ad exchange?*

10.8

Verizon Media

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#### ***Data***

11. *What are the main types of data that are used in providing your company's SSP / Ad exchange services (for example user data, advertising exposure data, other)? For each type of data please:*

##### **Inbound data**

- 11.1 Verizon Media's SSP/Exchange receives data from both Verizon Media's owned and operated websites/apps and from third party supply sources, including publishers integrating into our SSP, ad networks and upstream third party exchanges. This data will often be supplied in order to transact on a real-time bidding basis and will be consistent with OpenRTB specs or sent via HTTP ad tags. In some cases, Verizon Media's SSP may run code on the device to collect information for the purposes of ad selection; for example, JavaScript on a website or SDK for a mobile app.
- 11.2 The main types of data used in providing Verizon Media's SSP/Exchange services include: browser, OS, device identifiers (such as IDFAs), user identifiers (such as cookie IDs), technographic information, interest information (if provided by Publisher), geolocation information, and information about the ads seen by a user on which sites.
- 11.3 For Verizon Media's third party DSP partnerships, we initiate and receive user match requests, which transmit and process user identifiers between it and the partner platform so that an advertiser can target their audience using their own user identifiers.
- 11.4 On the DMP/Targeting side, a publisher may onboard their own first party data onto Verizon Media's platforms so they can target their audiences when ad serving or offering audience-based deals to buyers on Verizon Media's Exchange.

11.5 Third party audience data may also be available via Verizon Media's SSP for DSPs to leverage. This could include behavioural targeting segments (e.g., "coffee lover," "auto-intender").

**Data processed within Verizon Media's SSP/Exchange:**

11.6 Verizon Media's SSP/Exchange is largely a data pass-through to other systems. Data is minimally processed to do things like: geo-targeted ads or RTB bidders, audience-targeted deals, unique user counting, frequency capping, and other forms of measurement and verification for things like fraud prevention. Other internal downstream systems, like Verizon Media's DMP<sup>12</sup> or DSP, do additional processing, particularly for Verizon Media's owned and operated traffic.

**Outbound Data**

11.7 Data is shared downstream of Verizon Media's Exchange primarily through the OpenRTB standard. In other cases, we may pass data via direct third party ad tags or tracking pixels. For measurement and verification purposes, we sometimes send log-level data to a third party processor (e.g., WhiteOps for fraud prevention). Such processors are governed by contractual agreements.

**(a) Identify the categories of data that are included (e.g. for user data this might include demographic, interests, etc.)**

11.8 Below is a description of the main types of data we may use:

- (a) **Browser and device identifiers:** These include cookie and device ids (aka IDFA or GDSADID on mobile platforms). These identifiers can be used to retrieve information that has been previously stored for the given device or browser.
- (b) **User information:** Demographic information, such as age and gender.
- (c) **Technographic information:** This includes the type, model, or other context related to the browser or device the user is using.
- (d) **Interest information:** Interest information may be derived from the immediate context (page or mobile application the user is viewing) or interests that have been previously inferred from prior activity (associated with the device or cookie ID).
- (e) **Geolocation information:** In some cases, precise geolocation information is available and used to facilitate targeting (e.g., a third party could use geotargeting to plot that a user is in a coffee shop, airport, or shopping mall). Precision of location information will vary. In some cases, it may be "precise" (less than 100M), and in other cases Verizon Media may only be able to infer zip code or city level information.

**(b) Identify the main sources of the data and for each source describe how the data is collected, including how consumer consent is secured, any costs associated with acquiring the data and any restrictions on the use of the data.**

11.9 Please see the response to DSP Question 11(b), which is applicable here except with respect to DOT pixel.

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<sup>12</sup> This DMP is used for our own data (e.g., data we receive from our owned and operated properties), and is not a standalone service. See the response to DMP Question 1.

*(c) Provide details of how the types of data are used in the services that your company offers as an SSP / Ad exchange, such as audience targeting and managing bids for advertising inventory on behalf of publishers.*

- 11.10 Verizon Media's SSP is a "conduit" between inventory sources (publishers) and DSPs. It passes on certain data from publishers as well as third party vendors (e.g., MOAT Analytics). Both publishers and third party vendors supply information about the inventory--for example, contextual url, content type, ad sizes, and viewability. Publisher information on inventory is usually generically available for all SSPs they are hosted on and publishers generally provide. The DSPs analyse the data in order to target audiences, determine whether to bid on an impression, and determine how much to bid.
- 11.11 As explained above, Verizon Media's SSP/Exchange is largely a data "conduit" or pass-through to other systems and data is minimally processed for certain purposes.

*(d) Provide information on how different categories of data affect the value of advertising inventory, highlighting which categories of data are most valuable and why.*

- 11.12 As Verizon Media's SSP/Exchanges are largely data pass-throughs, the most important data are user identifiers (e.g., cookies) and device identifiers (e.g., IDFAs) and the corresponding user matching tables we maintain between Verizon Media's platforms and Verizon Media's external partner platforms. Matched users are of high value, and elicit a higher response. Data is available for the DSP to action in their own campaign targeting, but first-party consumer data such as age and gender gathered via registration increases the value of a customer to potential buyers.
- 11.13 Additionally, data like browser, OS, device identifiers, user identifiers, technographic information are essential for detecting and preventing ad fraud.
- 11.14 IP addresses are critical for basic geo-targeting and optimizing which bid endpoints we should call based on the user's geographic location in order to minimize latency.

*(e) Explain how your ability to access different types of data compares to other companies who offer SSP / Ad exchange type services, notably large vertically integrated companies? How does this impact your company's ability to compete as an SSP / Ad exchange?*

- 11.15 For the most part, Verizon Media's SSP/Exchange accesses and uses the types of data outlined in this document in the same ways as other companies in the industry; thus, Verizon Media's offerings are comparable to the wider market. We have a strong position with regard to first-party publisher data where we are the publisher (i.e., in relation to Verizon Media's owned and operated sites). As a "conduit" or pipe we can activate Verizon Media's first-party data for DSP partners who wish to target specific interest groups (e.g., targeting users who have researched car purchases on other websites).
- 11.16 Companies that offer services that require a visitor to log in can use this relationship to improve the data they can offer advertisers and/or obtain user consent that other entities may find more challenging to secure. Accordingly, this sign-in requirement married with strategic presence raises questions. Sign-in alone, however, is not an indication of whether the data is of sufficient quantity and quality to be meaningful.

12. *Over the past three years, how has your company's ability to access different types of data changed? What were the reasons for these changes (for example, the introduction of the General Data Protection Regulation)?*
  - 12.1 Please see the response to DSP Question 12, which is largely the same for SSP/Ad exchange platforms.
13. *How and why do you see your company's ability to access different types of data changing over the next three years and how will this affect your company's ability to offer SSP / Ad exchange services?*
  - 13.1 Consumers are becoming increasingly aware of data issues and how to exercise their GDPR rights. In addition, browsers have introduced more consumer controls relating to use of data-- and in some instances, made it difficult for consumers to share data where they so choose-- which has the effect of disabling industry standard methods such as cookie tracking, replacing them with other identifiers. This could reinforce closed browser/SSP ecosystems. As noted above, the long term health of the ad intermediation market requires that browsers and other third parties remain neutral in the ecosystem so that consumers can directly control their access to targeted marketing via publishers and third party platforms directly without the intermediation of a browser. See also Verizon Media's response to Background Question 4(f).

#### ***Auctions***

14. *Please provide an overview of how your auctions work, including the following aspects:*
  - (a) *How is the winning bidder determined? Are bids integrated with quality scores to determine the ranking? If so, how are these quality scores determined?*
  - 14.1 No. Bids are not integrated with quality scores. The winning bid is determined based on the highest price. Verizon Media does and will, however, enforce creative requirements on the advertisements to be served.
- (b) *How much does the winning bidder pay (e.g. first price, second price)? Please explain why you have designed the auction in this way.*
- 14.2 Verizon Media supports both first-price and second-price auctions, as determined by publisher settings. With the growth of header bidding, the market has shifted from predominantly second-price auctions to first-price auctions. Whilst ultimately a publisher choice, Verizon Media's strong recommendation is first-price and publisher inventory should follow the same auction model across all SSPs.
15. *Do you cache bids (i.e. hold onto a bid after losing a programmatic auction to see whether the ad can be served on the next piece of content the user views)?*
- 15.1 No. Verizon Media does not cache bids, as it considers this artificial inflation of auction demand.
16. *Do you provide private marketplaces, i.e. real time auctions where participation is restricted to specific advertisers, or where specific advertisers are given priority?*
- 16.1 Yes. Verizon Media provides private marketplaces, as described in response to SSP Question 2. This is a commercially driven decision by a publisher as to how to sell its inventory.

17. *Do you participate in Google's Exchange Bidding? Why or why not? Do you have any concerns about how Exchange Bidding works?*
  - 17.1 Yes. Verizon Media participates in Google's Exchange Bidding ("EBDA"). This is driven by a publisher's adserver and header bidding choices. Verizon Media understands EBDA to be a preferred route for publishers due to Google Ad Manager's market prevalence and ease of integration, and as a challenger exchange Verizon Media accepts this route to partnering with publishers.
  - 17.2 EBDA allows other SSP/exchanges to compete with Google AdX on the requests coming from the publishers, using Google Ad Manager, who have chosen to implement this header bidding solution. Publishers have to pay a fee to Google. Google is responsible for the clearing of EBDA auctions, and this gives Google clear insight into the performance of other exchanges and the full bid landscape across competitive exchanges.
18. *Do you bid into Amazon TAM? Why or why not? Do you have any concerns about how Amazon TAM works?*
  - 18.1 Yes. Verizon Media bids into Amazon TAM. This is a publisher driven choice. Verizon Media understands it to be a preferred route of publishers as it provides publishers with full access to Amazon's demand. As a header bidding container solution, Verizon Media needs to integrate where the publisher has already deployed the solution. Publishers have to pay a fee to Amazon, and Amazon is able to see bids from all other SSP/exchanges giving Amazon clear insight into the performances of other exchanges and the full bid landscape across competitive exchanges.
19. *In relation to the information included in an offer and/or in a bid, please explain:*
  - (a) *How do you or other participants verify this information?*
    - 19.1 Bid CPM is verified by ongoing payment by DSPs of non-disputed invoices. Advertiser and Advertiser URL are verified through Verizon Media's anti-fraud processes, described in response to SSP Question 6. Please also the presentation on Verizon Media's advertising policy and industry standards produced with Verizon Media's Response to RFI1 as **Annex 041**.
  - (b) *What do you do to prevent or minimise ad fraud?*
    - 19.2 Please see the response to SSP Question 6.
  - (c) *Do you provide different information to different participants, depending on their relationship to you?*
    - 19.3 [REDACTED]

#### ***Competition***

20. *In your company's role as an SSP / Ad exchange who do you see as your main competitors?*
  - 20.1 Verizon Media's main competitors with respect to Verizon Media's SSP/Ad exchange are:

- Xandr (previously known as AppNexus)
- Index SSP
- District M SSP
- Rubicon
- Open X
- Google Ad Manager
- PubMatic
- MoPub
- Spot X
- Freewheel/Comcast/Sticky Ads
- Teads
- Adform
- Improve Digital
- Smart

*(a) What you see as the relative strengths and weaknesses of the SSP / Ad exchange service your company offers compared to each of these competitors?*

20.2 Verizon Media's main competitive strengths include access to premium inventory via Verizon Media's owned and operated brands, and the scale of Verizon Media's audience. In addition, Verizon Media differentiates itself by [REDACTED] creating a reputation for safe, trusted inventory.

20.3 [REDACTED]

20.4 Verizon Media's [REDACTED]

[REDACTED] Google owns a mobile operating system (Android) and a main interaction point for consumers in its Chrome browser.

20.5 [REDACTED]

*(b) How has your company adapted in response to competitors?*

20.6 Please see the response to Question 34(c) in Verizon Media's Response to RFI1 regarding how Verizon Media has adapted its strategy for digital advertising generally.

20.7 In addition, with respect to SSPs/Ad Exchanges, Verizon Media [REDACTED]

*(c) How do you anticipate the competitive dynamics in the provision of SSP / Ad exchange services might change over the next three years?*

20.8 Verizon Media anticipates increased market consolidation due to cost pressures, as a result of the rise of header bidding and commoditization of services (i.e., same supply, same demand across SSPs). Verizon Media also anticipates cross-market pressures--for example, the need to offer publishers a single sales channel booking system (omni-format, omni-sales channel, insertion order, and programmatic).

*(d) # Please provide any internal documents over the last three years which refer to your company's competitive strategy in the provision of SSP / Ad exchange services.*

20.9 Please see the business objectives documents produced as **Annexes 031-034** with Verizon Media's Response to RFI1, some of which may not apply to the UK market specifically. Please also see the strategy presentation attached as **Annex 063**, some of which may also not apply to the UK market specifically, and which has been redacted to remove certain U.S.-specific information.

21. *Please explain what you consider to be the impact of the following features on competition in the supply of SSP / Ad exchange services:*

*(a) The scale of SSPs / Ad exchanges;*

21.1 Verizon Media considers scale to have a high impact on competition, as larger SSPs are able to set standards for features of the platform and share these fixed R&D costs among multiple publishers. In addition, demand tends to focus on the top SSPs (i.e., those with reach and scale) and publishers work with a limited number of SSPs.

*(b) The level of vertical integration by providers of SSP / Ad exchange services along the advertising intermediation supply chain;*

21.2 It can be a competitive advantage to be present at various levels of the programmatic advertising value chain, provided that the integration between the different technologies works well. Publishers desire single systems (e.g., for ad serving and SSP), particularly as these markets intermingle with the rise of header bidding, holistic yield (unified auction between insertion order and programmatic), and programmatic guaranteed. As noted in response to Background Question 4(b), the integration of an ad server and SSP with strategic market status disincentivises using more than one SSP. In addition, an ad server can advantage a related SSP through providing a last look or other functionality that is only available to the related SSP.

- 21.3 A company's presence on multiple levels is not therefore a concern per se. Rather regulatory attention should focus on entities with strategic market status in particular points in the ecosystem and on potential barriers to entry that this may generate.
- 21.4 Auctions are transparent and the expectation is that inventory is accurately represented (e.g., by url, Mobile App ID). Much depends on the policies set by advertisers and the media plan executing on that policy.
- 21.5 Verizon Media does consider confidence in the quality of advertising inventory to have an impact on competition. As described in response to SSP Question 6, publishers agree to Verizon Media's content quality guidelines, and Verizon Media conducts regular manual inventory checks to make sure that traffic meets its content quality standards.
- 21.6 Finally, as explained in response to Background Question 4(b), players with strategic market status which make their owned and operated inventory exclusively available via their own SSP can reduce incentives for other publishers to also use competing SSPs.

***(c) The access SSPs / Ad exchanges have to advertising inventory (and the confidence in the quality of advertising inventory);***

- 21.7 Auctions are transparent and the expectation is that inventory is accurately represented (e.g., by url, Mobile App ID). Much depends on the policies set by advertisers and the media plan executing on that policy.
- 21.8 Verizon Media do consider confidence in the quality of advertising inventory to have an impact on competition. As described in response to SSP Question 6, publishers agree to Verizon Media's content quality guidelines, and Verizon Media conducts regular manual inventory checks to make sure that traffic meets Verizon Media's content quality standards.
- 21.9 Finally, as explained in response to Background Question 4(b), players with strategic market status which make their owned and operated inventory exclusively available via their own SSP can reduce incentives for other publishers to also use competing SSPs.

***(d) The access SSPs / Ad exchanges have to user level data;***

- 21.10 Verizon Media considers access to user level data via SSP to have a low impact on competition, as advertisers tend to use their own data (augmented by third parties) or publisher data. In either such case, they do not access the SSP; the data used is from the DSP. Other non-user level data, such as viewability and contextual data, can be helpful to advertisers. In summary, SSPs provide value for inventory level data (e.g., viewability, blocking fraud, etc.) but not user level data, which is executed at the DSP level in the programmatic stack.

***(e) Interoperability between the different levels of the supply chain (for example functionality, ability to match data, latency);***

- 21.11 Verizon Media noted in response to Question 47 of the Response to RFI1 that interoperability is important for targeted activities in business and to address specific issues, for example, at the infrastructure level. Verizon Media invests in open source technologies to ensure interoperability and standardization outcomes at the infrastructure layers of its technology stack. Operational excellence is crucial in a commoditised environment (i.e., same supply, same demand across SSPs) to compete. Verizon Media's SSP is interoperable with any adserver, where the integration is on a tag basis. Where the integration is on header bidding solution, either client side or server side, Verizon Media is able to integrate with TAM, Index, EBDA (Google) and prebid solutions.

*(f) The adoption of header bidding;*

21.12 Verizon Media considers the adoption of header bidding to have a high impact on competition. It spreads the same supply across multiple SSPs, leading to supply path optimisation as DSPs choose favoured SSPs to work with. Previously, with tag based integrations, SSPs representing the publisher would have different levels of access to the same inventory.

*(g) Any other significant technological developments or new products/services (please specify).*

21.13 Please see Verizon Media's response to Background Question 10 regarding recent innovations.

***Market data***

22. *Please fill in the attached spreadsheet (tab 'SSP') with monthly data for the last two calendar years*

22.1 As per Verizon Media's covering email, this information is to follow.

## **Questions to Publisher Ad Servers**

### ***Your customers and business model***

1. ***Using an Excel spreadsheet, please identify and provide contact details of the 20 publishers from which your ad server business has earned the highest revenues over the last 12 months; please provide details of the amount of revenue your ad server generated from each of them.***
  - 1.1 Please see the Ad Server tab in the spreadsheet containing the requested information, attached as **Annex 055**.
  - 1.2 Verizon Media has offered an ad server solution to publishers since 2007, which is currently called Oath Ad Platforms Ad Server. [REDACTED] Verizon Media ceased offering this ad server solution to new publishers in January 2019, and the platform will be completely shut down [REDACTED] when current publishers will have migrated to another ad server. Verizon Media has closed the office in Germany which provided, built, and maintained these services, and the employees who previously worked in this office are no longer with the company.
  - 1.3 Verizon Media has other ad servers, used to either serve direct ads or programmatic ads, but these other ad server solutions are not discrete products or offered separately to publishers and are integrated into Verizon Media's SSPs.
  - 1.4 As such, Verizon Media has limited information and documents to offer in response to some of the following questions.
2. ***Please describe the most 'typical' transactions for the selling of advertising inventory facilitated by your company's ad server. Please include details of:***
  - (a) ***each of the stages involved in the transactions;***
    - 2.1 Generally, advertisers purchase inventory via agencies, which buy inventory on their behalf from publishers. Advertisers are responsible for requesting and specifying a particular campaign, including objectives, volumes and budgets.
    - (b) ***each type of party dealt with and the role they play;***
      - 2.2 Agencies plan out the distribution of spending among multiple publishers, in line with performance objectives as well as brand safety and other policies (if any) set by the advertiser client. Publishers deliver against these objectives and volumes, with the agency altering delivery mid-campaign to ensure objectives are met and budgets are spent appropriately.
      - (c) ***the information that you require from publishers to facilitate the sale of ad inventory;***
        - 2.3 Verizon Media does not require any information from publishers. As an adserver Verizon Media does not play any part in the transactions described above. Verizon Media merely tracks delivery and performance metrics, such as clicks.

*(d) the information exchanged with ad exchanges/ad networks/SSPs in bid requests and actual bids for ad inventory.*

- 2.4 Ad servers and SSPs do not interact in a meaningful way (at the campaign level) when delivering campaigns on SSPs. Ad servers are the technology that initiate the request for an ad to be served to a page. Where a header bidding code is implemented on a page, it will request each SSP to request bids from DSPs. Where it is not header bidden, the ad server will simply fire the SSP ad code to commence the auction.
- 2.5 The outcome of the auction will submit a response which will be included in the ad server's decision of what campaign to serve. The ad server's decision is usually simply a decision of prioritisation from the campaign lines active within it.

3. *Please provide an overview of how you charge for the services you offer.*

*(a) Please describe the main types of fees charged for the ad server services offered and provide an indication of the scale of these fees and roughly what proportion of the value of ads served these fees constitute.*

3.1 Publishers using Verizon Media's ad server are charged on a CPM basis depending on the number of ads delivered. The management and collection of revenue is owned by the publisher. Verizon Media sometimes charges minimum monthly fees for the ad serving service. Additional fees also may be invoiced when the publisher decides to use other functionalities/services available as part of this product (e.g., technical support, analytics, etc.).

*(b) Apart from the fees described in response to question 3(a), do you generate any other types of revenue from providing ad server services? Please describe each of these sources of revenue (if any) and provide an indication of their scale and roughly what proportion of the value of ads served they constitute.*

3.2 No. Verizon Media does not generate any other types of revenue from providing ad server services.

4. *What are the main KPIs that are valued and monitored by your customers?*

4.1 The main KPIs that were valued and monitored by Verizon Media's customers were:

- Adserving system uptime to serve impressions (i.e., server advertiser campaigns)
- GUI availability (required to create, start, run advertising campaigns)
- Discrepancy in impression count between publishers' adserver and advertisers' adserver

5. *How do you differentiate the services that you offer compared with other ad servers?*

5.1 Verizon Media does not have a view on this question, as Verizon Media is no longer selling Verizon Media's ad server product to new publishers and plan to close the business [REDACTED]  
[REDACTED]

6. *Is your ad server integrated with a supply side platform (SSP) or with an ad exchange? If so, what does this integration entail?*
  - 6.1 Please see Verizon Media's response to Ad Server Question 1, about Verizon Media's own ad servers. Verizon Media integrate 3rd party ad servers using industry standards such as open source Prebid header bidding or Google EBDA for individual publishers.
    - (a) *Is any of the data (e.g. bidding data) collected in your role as ad server shared with your SSP or ad exchange? If so, please describe what data is shared and for which purposes.*
  - 6.2 No. The data collected in Verizon Media's role as ad server was kept separate from Verizon Media's SSP.
7. **# Please describe the nature of the contractual relationships that you typically have with publishers, including the rights of publishers to access targeting, transaction and fee data. Please provide template or example contracts to support this description.**
  - 7.1 Verizon Media charged a set CPM fee for its ad server solution. Verizon Media did not provide targeting data because it would have been unusual for a publisher to need (or even want) the targeting criteria advertisers are using for their inventory.
  - 7.2 Attached as **Annex 064**, please find an example of Verizon Media's ad server contract.

***Investments and innovation***

8. ***Based on your company's experience, please identify:***
  - (a) *the necessary categories and scale of investments required to i) build and ii) maintain an ad server;*
  - (b) *the ongoing costs categories and scale of on-going costs required to maintain a competitive ad server.*
- 8.1 [REDACTED] In addition, Verizon Media is shutting down its ad server and has closed the organisation's German office that built and maintained it.
9. ***To what extent are these investments and costs scalable, i.e. how do they vary with the level of activity on the ad server such as the volumes of bids/transactions, number of ad exchanges/SSPs or publishers dealt with?***
  - 9.1 With hosted processing, such as Amazon Web Services, infrastructure costs are fully scalable (i.e., linear based on impressions).
10. ***Where not identified in your response to question 8, please set out how much your company has spent on R&D expenditure in developing aspects of its ad server services for each of the last three calendar years. Please identify what developments this expenditure was related to and how it has impacted the services you offer.***
  - (a) *To what extent are these investments also beneficial for other services offered by your company?*

10.1 Verizon Media [REDACTED]  
[REDACTED]

11. *Please explain the role of innovation in the development of ad server services.*

*(a) Please identify the most significant innovations in the last three years on your ad server.*

*(b) Please explain how these innovations have impacted the services that you provide as an ad server and improved the experience of publishers.*

*(c) How did these innovations come about? Were they a result of internal developments, acquired from third parties or the result of a change in ownership or an acquisition of another company?*

*(d) Please explain the main drivers of these innovations; for example, are they the result of new technology, wider market developments, in response to customer requirements or in response to specific changes in the competitive environment (such as new entry, market consolidation or innovations made by direct competitors)?*

*(e) Are there any significant innovations that you have considered over the past three years but chosen not to pursue? What was the impact of these decisions on the services your ad server provides?*

*(f) How does your company anticipate that ad server services will change over the next three years?*

11.1 Verizon Media does not have a view on these questions, as Verizon Media is closing the business [REDACTED]  
[REDACTED]

### ***Competition***

12. *In your company's role as an ad server who do you see as your main competitors?*

12.1 Our main competitors on the ad server business included:

- DoubleClick for Publishers
- Sizmek (Sold to Amazon in May 2019)
- Flashtalking Activate
- Conversant Ad Serve
- Xandr (formerly named Appnexus)
- AdGear
- Freewheel (Comcast)
- Adform

*(a) What are the relative strengths and weaknesses of the ad server your company operates compared to each of these competitors?*

12.2 While Verizon Media was still active in the market, the relative strength of Verizon Media's ad server was platform stability. [REDACTED]

*(b) How has your company adapted in response to competitors?*

12.3 [REDACTED]

*(c) How do you anticipate the competitive dynamics in the provision of ad server services to change over the next three years?*

12.4 Verizon Media does not have a view on this question, as Verizon Media are closing the business [REDACTED]

*(d) # Please provide any internal documents over the last three years which refer to your company's competitive strategy in the provision of ad server services.*

12.5 Verizon Media is unable to provide any documents due to the closure of Verizon Media's office in Germany where the ad server business was operated.

13. *Please explain what you consider to be the impact of the following features on competition in the supply of ad server services:*

*(a) The scale of ad server providers;*

13.1 The scale of ad servers dilutes product R&D across multiple clients, bringing economies of scale. Scale also drives cost efficiency in server deployment and cost management, as well as the cost burden of support services.

*(b) The level of vertical integration of ad server providers along the advertising intermediation supply chain;*

13.2 Vertical integration did bring additional revenue from SSP monetisation. However, the rise of header bidding has diluted that. In addition, there are benefits that come from completion of auctions in closed systems to avoid any impression loss between ad servers. The transfer of impressions between one servers (set of tags) to another can cause a loss of fidelity of data and understanding about the impression and also the loss of the impression downstream. This discrepancy can be as much as 5% of impression volume.

13.3 As a general matter, as explained in response to Background Question 4(a), it can be a competitive advantage to be present at various levels of the programmatic advertising value chain, provided that the integration between the different technologies works well. A

company's presence on multiple levels is not therefore a concern per se. Rather, regulatory attention should focus on entities with strategic market status in particular points in the ecosystem and on potential barriers to entry that this may generate.

***(c) The access intermediaries have to user level data;***

- 13.4 User level data is important to understand engagement with publisher content, as well as monetisation via advertising or other methods such as paywall.
- 13.5 It can be important for advertising monetisation that intermediaries providing ad server services can match a publisher's users with their own information, particularly with programmatic monetisation where user personalisation contributes the majority of ad spend. If this is inhibited then it could be problematic to use additional partners, outside of the adserver ecosystem for reasons set out in Ad Server Question 13(d) below.

***(d) Interoperability between the different levels of the supply chain (for example functionality, ability to match data, latency);***

- 13.6 As explained in response to Ad Server Question 13(b) above, there are benefits to interoperability. Moving between systems on different levels of the supply chain can cause latency and a lack of fidelity of understanding, as well as drops of actual impression opportunities. This is a significant consideration for publishers, as management of latency is important for user satisfaction.

***(e) The adoption of header bidding;***

- 13.7 Header bidding has allowed publishers to compare more demand sources where they are utilising an ad server. Because header bidding allows multiple SSPs to compete, it has had an impact on the need for integrated ad servers and exchanges, though latency advantages remain as explained above.
- 13.8 Publishers using Verizon Media's ad server could in theory access the Google AdX demand sources if they decide to implement header bidding. However, to Verizon Media's knowledge, Google AdX is not connected to any header bidding solution and is accessible only via Google Ad Manager or when set up as a passback tag in a waterfall model.<sup>13</sup>

***(f) Any other significant technological developments of new products/services (please specify).***

- 13.9 The ad server business has been mainly impacted by the growth of programmatic. Ad servers have, as a result, been consolidated and integrated to a SSP/Exchange and were less and less offered separately. Since Google AdX is integrated directly with Google Ad Manager only and has access to all the requests coming from Google Ad Words, publishers tend to use Google Ad Manager as an ad server. However, "dynamic allocation" and Google Exchange Bidding (EBDA) had no real impact on Verizon Media's ad server business.

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<sup>13</sup> "Waterfall" model is the process of setting up demand sources (SSPs) in a sequential order lines, enabling each SSP/Exchange to fill value one at a time, and then pass unfilled inventory to the next SSP (e.g., Google first, any unsold flows to SSP2, any unsold passes to SSP3).

14. *What costs would a publisher face to switch ad server? How significant are these costs? What do you do to persuade publishers to switch to your ad server in the face of these switching costs?*

14.1 The predominant costs that publishers face in switching ad servers include holding RFPs (i.e., running a pitch process and completing technical evaluations between competing platforms), retraining staff, and changing tags on their websites. There is significant technical time to switch ad server tags on a publisher site, where an infrastructure and hierarchy needs to be built--e.g., tags need to be tested and deployed onto a live site, and performance needs to be monitored. When Verizon Media was actively in the market, Verizon Media supported publishers by providing assistance from Verizon Media's technical teams, who could assist with testing tags and with the migration. Verizon Media's [REDACTED]

### ***Questions to Data Management Platforms (DMPs)***

#### ***Your customers and business model***

1. ***Using an Excel spreadsheet, please identify and provide contact details of the 20 UK customers from which your DMP business has earned the highest revenues over the last 12 months; please provide details of the amount of revenue you generated from each of them, the services they purchased and the main business activities they are involved in.***
  
- 1.1 This question is inapplicable, as Verizon Media does not provide a standalone DMP service. Users of Verizon Media's DSP can leverage Verizon Media's first party data. And Verizon Media has contractual relationships with third party DMPs to ingest their data into Verizon Media's DSP. Verizon Media does not charge for the ingestion service.
  
2. ***Please provide an overview of the digital advertising DMP services provided by your company and how you charge for these services (note we ask specific questions on data brokerage, data matching and data management in the sections below), including:***
  - (a) ***Each of the main types of service provided, the main functions involved in each service and the types of customers each service typically attracts;***
  
  - (b) ***On what basis you provide each of these services to customers, e.g. subscription, one-off fee, etc;***
  
  - (c) ***Each of the main types of fees charged for the services.***

2.1 N/A

#### ***Competition***

3. ***Who do you see as your main competitors in the provision of DMP services?***
  - (a) ***What do you see as the relative strengths and weaknesses of the service your company offers compared to each of these competitors?***
  
  - (b) ***How has your company adapted in response to competitors?***
  
  - (c) ***How do you anticipate the competitive dynamics in the provision of DMP services might change over the next three years?***
  
  - (d) ***# Please provide any internal documents over the last three years which refer to your company's competitive strategy in the provision of DMP services.***

3.1 N/A

#### ***Your role as data broker<sup>14</sup>***

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<sup>14</sup> **Data brokers** refers to companies that collect data themselves or buy it from other companies, aggregate the data and then resell the data - in the form of, for example, audience segments - to third parties

4. *Does your organisation fulfil a role as a data broker or similar? If yes, please answer the remaining questions in this section. If no, please proceed to question 7.*

4.1 Verizon Media does not consider itself a 'data broker' and the remaining questions in this section are therefore inapplicable. Verizon Media does not provide any user level data to buyers like a data broker would. Verizon Media allows buyers to leverage its first party data on the DSP, which involves accessing Verizon Media's taxonomy of segments (e.g., buyers on Verizon Media's DSP can choose to 'layer' a 'coffee lover' or 'auto intender' segment onto their media buy), but the buyer is not given access to the segments at an individual cookie ID or ad ID level.

5. *What are the main types of data that you purchase in your role as data broker (for example user data, advertising exposure data, other)? For each type of data please:*

- (a) Identify the categories of data that are included (e.g. for user data this might include demographics, interests, etc.)*
- (b) Identify the main sources of the data and for each source describe how the data is collected, including how consumer consent is secured, any costs associated with acquiring the data and any restrictions on the use of the data.*
- (c) Provide information on how different categories of data affect the value of advertising inventory, highlighting which categories of data are most valuable and why.*
- (d) What is the role of each type/category of data in the data brokerage services that your company offers? How do you process and manage the data to turn it into data products?*
- (e) How does your ability to access different types of data compare to other companies who offer similar services? How does this impact your company's ability to compete?*
- (f) Over the past three years, how has your company's ability to access different types of data changed? What were the reasons for these changes (for example, the introduction of General Data Protection Regulation)?*
- (g) How and why do you see your company's ability to access different types of data changing over the next three years and how will this affect your company's ability to offer DMP services?*

5.1 N/A

6. *Please describe how your company charges for data and who the main customers are, including the following aspects:*

- (a) What are the main type of organisations who purchase data from you?*
- (b) What are these customers purchasing, for example are they purchasing specific or defined audiences?*
- (c) How do your customers use the data that they buy from you?*
- (d) What charging model(s) do you use for data brokerage services?*

6.1 N/A

*Your role in data matching*

7. ***Does your organisation provide data matching services on behalf of customers or to build in-house datasets?<sup>15</sup> If yes, please answer the remaining questions in this section. If not, please proceed to question 11.***

7.1 Yes. Verizon Media allows advertisers to bring their own first party data to Verizon Media's ad platforms to facilitate targeting their customers and prospects, or to negatively target customers (i.e., to avoid sending their customers ads, as they are already customers). Verizon Media refers to this as "**Custom Audiences**". To do this, a data match is required. This may involve Verizon Media undertaking the match between Verizon Media's data and the buyer's data (which Verizon Media does not charge the customer for), or a third party may undertake the match of Verizon Media's data with the buyer's data. Methods include cookie matching.

7.2 Verizon Media also carries out cookie matching when operating Verizon Media's SSP. Please see Verizon Media's response to DMP Question 8 for more detail regarding cookie syncing.

8. ***Please describe how the data matching services that you provide work, including an explanation of the functions and processes that are involved, the timescales for the matching process and whether it is ever done in real time.***

**Custom Audiences**

8.1 For Custom Audiences, Verizon Media acts as the advertiser's processor. Verizon Media matches the advertiser's first party data with Verizon Media's proprietary data. Verizon Media buckets the data accordingly and use that on Verizon Media's platform as per advertiser's instructions. All data uploaded at advertiser level will remain only for the use of the client/advertiser and not for further use. Verizon Media does not resell the data and do not re-use the data for Verizon Media's segmentation or audience building purposes.

8.2 [REDACTED]

8.3 [REDACTED]

**Ad Platforms**

8.4 [REDACTED]

<sup>15</sup> **Data matching** refers to the process of matching data held across different datasets to build larger datasets examples of which might include longitudinal user profiles, audience segments or target audiences. Cookie matching is an example of a process that might be involved in the provision of data matching services. 'In-house datasets' refer to the datasets the DMP might build itself, rather than directly on behalf of client, most likely with the purpose of then selling services based on these data sets (such as the provision of audience segments) on to clients.

[REDACTED]

8.5 Without cookie matching, other techniques which are largely the preserve of the players with strategic market status are required in order to join data and inventory to facilitate the operation of the ad market. Changes to how some browsers operate threatens the viability of cookie matching, which only serves to strengthen the position of the players with strategic market status that are less reliant on cookie matching. Please also see SSP Question 11.

9. ***Who are your main customers for data matching services and what do they require these services for?***

9.1 For Custom Audiences, the main 'customers' (even though Verizon Media does not charge for those services) are advertisers or their agencies. Where Verizon Media undertakes matching as part of its SSP services, the customers (perhaps better described as the main beneficiaries) are both the publisher whose inventory Verizon Media is selling and the potential buyers (i.e., DSPs and their clients).

10. ***What is the charging model you employ for data matching?***

10.1 Verizon Media does not charge customers for this service.

***Your role in data management***

11. ***Does your organisation provide data management services?<sup>16</sup> If yes, please answer the remaining questions in this section. If not, please proceed to question 15.***

11.1 No. Verizon Media does not provide data management services (beyond the data matching services of Verizon Media's SSP/DSP, as described above), and therefore the remaining questions in this section are inapplicable.

12. ***What are the main functions involved in data management?***

12.1 N/A

13. ***Who are your main customers for data management services?***

13.1 N/A

14. ***What charging model(s) do you employ for data matching services?***

14.1 N/A

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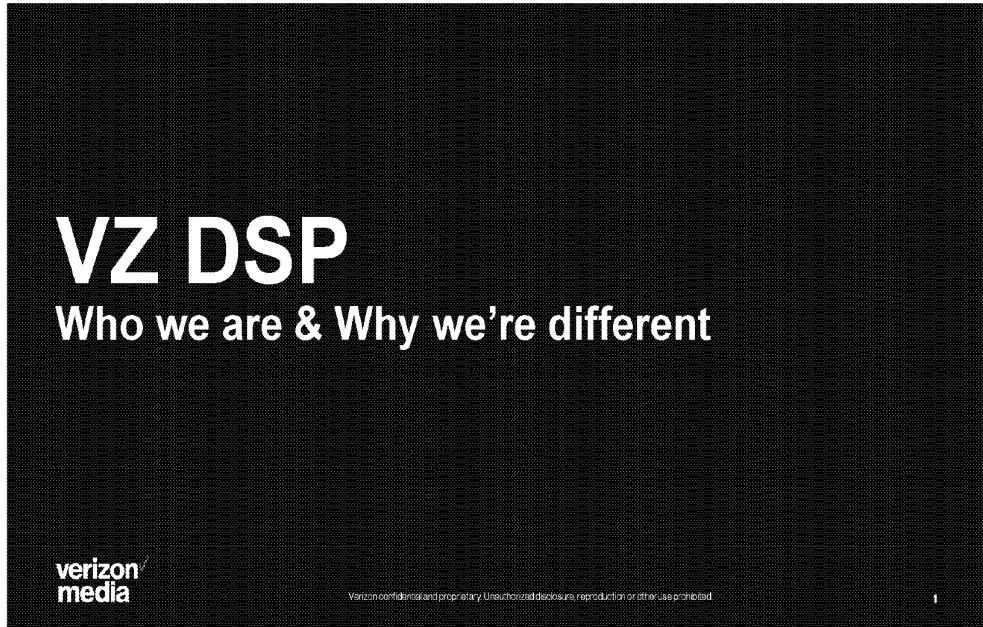
<sup>16</sup> 'Data management services' refers to services provided to clients to undertake functions such as the collation, storage and processing of data.

***Interaction with DSPs and SSPs***

15. ***Please provide an overview of how you provide data to or integrate with DSPs and/or SSPs.***
  - 15.1 This question is not applicable. Verizon Media's first party data is only available within Verizon Media's ad platforms, and therefore not transferred to external DMPs, DSPs or SSPs.
16. ***How is the data that you provide used by DSPs and SSPs in the services they provide and are there any restrictions on how they are able to use it?***
  - 16.1 N/A

Submitted 31 October 2019

## **Exhibit 4**

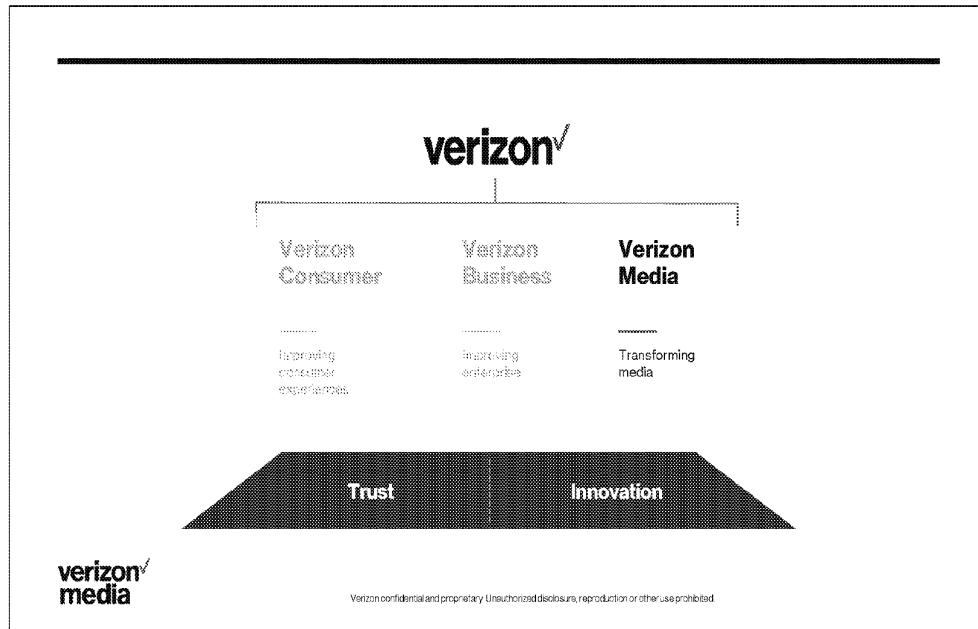


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## Agenda

- How does our DSP stack up today
- Driving cost effectiveness
- Supply Path Transparency through Omniscope
- Native brought to the DSP
- Driving performance
- Data and Scale
- True Omnichannel
- Looking ahead





So who are we?

Verizon is a global technology company delivering the promise of the digital world to millions of customers everyday. It is one of the largest telco companies in the world. #1 wireless network in the US. Verizon is a scale player, operating in 140 plus countries with over 150,000 employees.

Verizon regroups its activities under 3 business units:

Verizon consumer

Verizon business

Verizon media

As Verizon Media, we are one of the three business units of Verizon,

Our mission as Verizon Media is to transform media through the twin pillars of our mothership Verizon: trust and innovation.

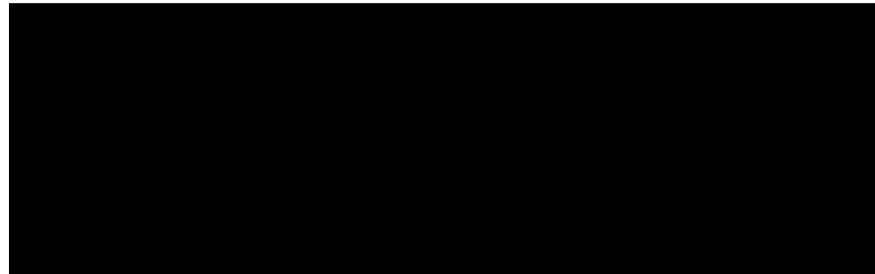
At Verizon Media we believe to earn trust we need to build the industry's most transparent environment that's safe and effective for businesses to operate in.

We are committed to transparency, brand safety, data privacy and accuracy.

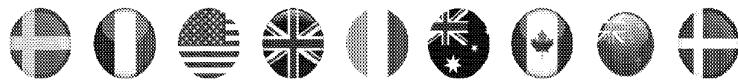
We are also committed to innovating the customer experience. One such example being...

- our investment in a new state of the art DSP, including video, display, and native, and the ability to integrate third party tracking tools for independent measurement.

## Where are we globally



verizon/  
media



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How does our DSP stack up today?

verizon<sup>✓</sup>  
media

[This slide to be modified based on client]



## 5 dimensions of demand success



**Machine Learning to drive Performance**  
AdLearn | Predictive Audiences | Bid Shading



**Identity & Proprietary data**  
Audience Insights | Audience Builder | Device Graph



**Brand building via premium & emerging media**  
Audio | Connected TV | DOOH | PGD |



**Mobile innovation**  
Mobile data | Flurry | Native API



**The Friendly Walled Garden: Transparency & Control**  
Supply Path Optimization | Bid customization | Data sharing



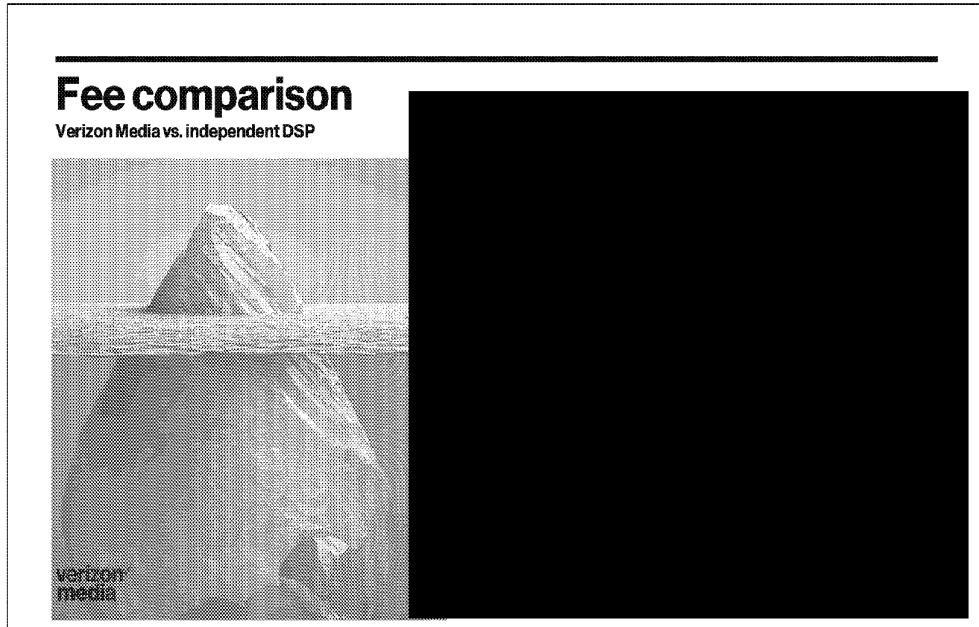
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# How we bring cost effectiveness

verizon  
media

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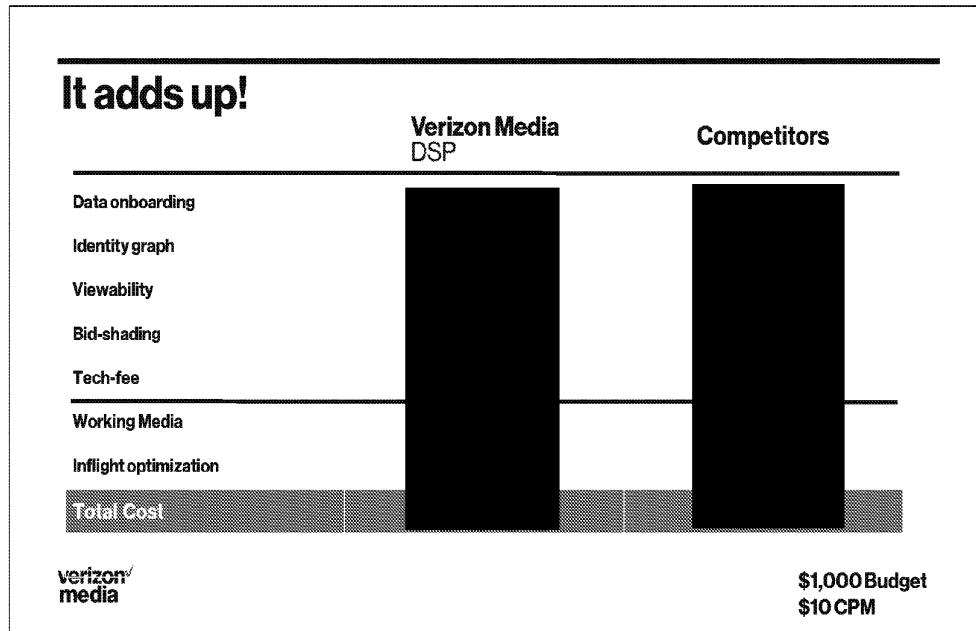
7



<b>Verizon DSP beats the 'tech tax'</b>		
	Verizon Media DSP	3P DSPs
Technology Fee	[REDACTED]	[REDACTED]
Data Onboarding Fee	[REDACTED]	[REDACTED]
Viewability Optimization Fee	[REDACTED]	[REDACTED]
Device Graph Fee	[REDACTED]	[REDACTED]
Bid Shading Algorithm Fee	[REDACTED]	[REDACTED]
In-Flight Sales Optimization	[REDACTED]	[REDACTED]
Proprietary IP Data	[REDACTED]	[REDACTED]

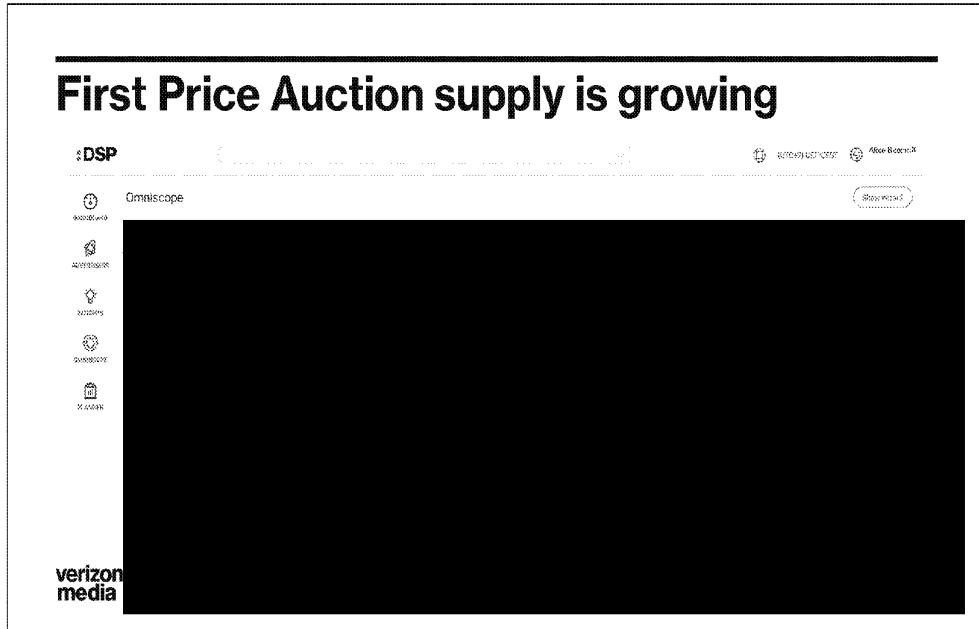
verizon<sup>®</sup>  
media

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]



[REDACTED]

Data Onboarding  
Identity  
Viewability  
Bid Shading  
Tech Fee



## DSP Capabilities Enable SPO Transparency

**BID SHADING**

- Turned on in DSP since Q3 2018



**UI REPORTING & TARGETING**

- Inventory Type metric (Report Builder)
- Inventory Type targeting (Line level)



✓ Mitigates overbidding on first price inventory while **minimizing impact on scale**

✓ Inform optimization strategies based on data-driven insights

✓ Flexibility to **action** upon learnings via auction type targeting

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**verizon media**

## DSP Bid Shading Drives Cost Efficiencies

US Advertiser

Final Price Auction  
Avg Bid

Avg Bid cPM

Avg Multiplier cPM

% Bid Savings

% Cost Savings

**BID SHADING COST SAVINGS AVAILABLE IN REPORT BUILDER**

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# Supply Path Transparency through Omniscope

## The Omniscope advantage

### Supply path transparency

- Transparency into the supply path: auction type, ads.txt, exchange overlap
- Platform wide avg CPM prices for your desired targeting
- Use the supply path data to efficiently find your audience
- Find the optimal mix of channel, format and exchange
- Eliminate experimentation budget - divide budget based on scale
- Identify the most efficient way to purchase specific publishers

### Powerful insights

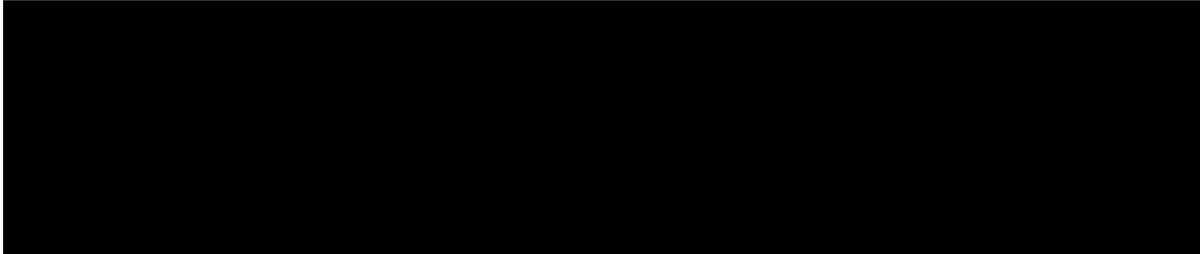
- Compare two audiences simultaneously
- Compare two existing lines side by side
- Evaluate individual publishers or deals
- Layer numerous targeting restrictions to identify ideal buying strategy
- Platform wide 1st and 2nd price auction metrics

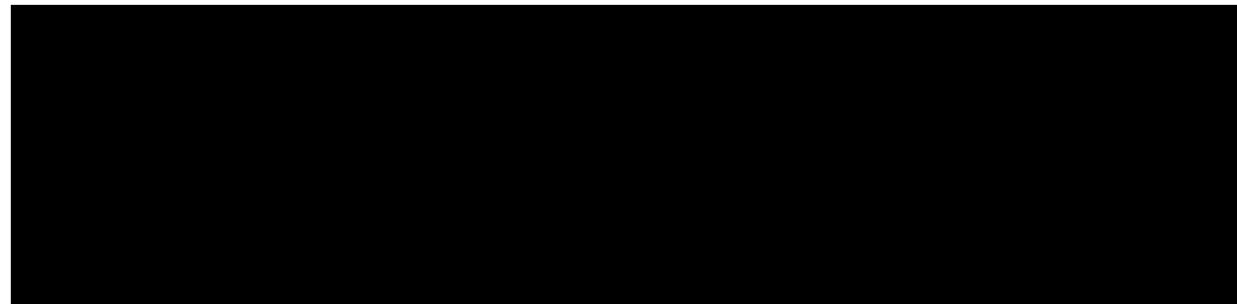


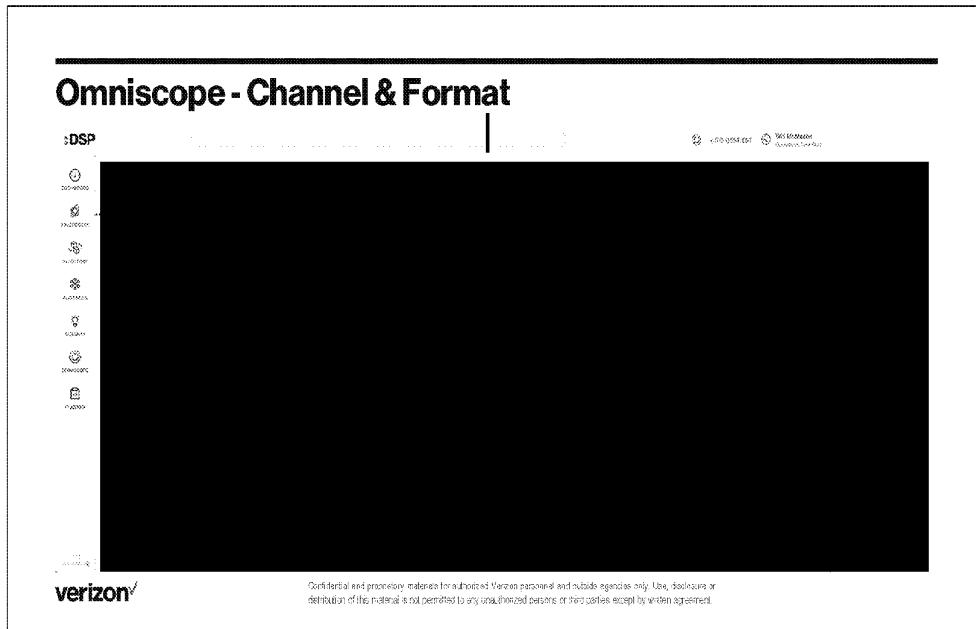
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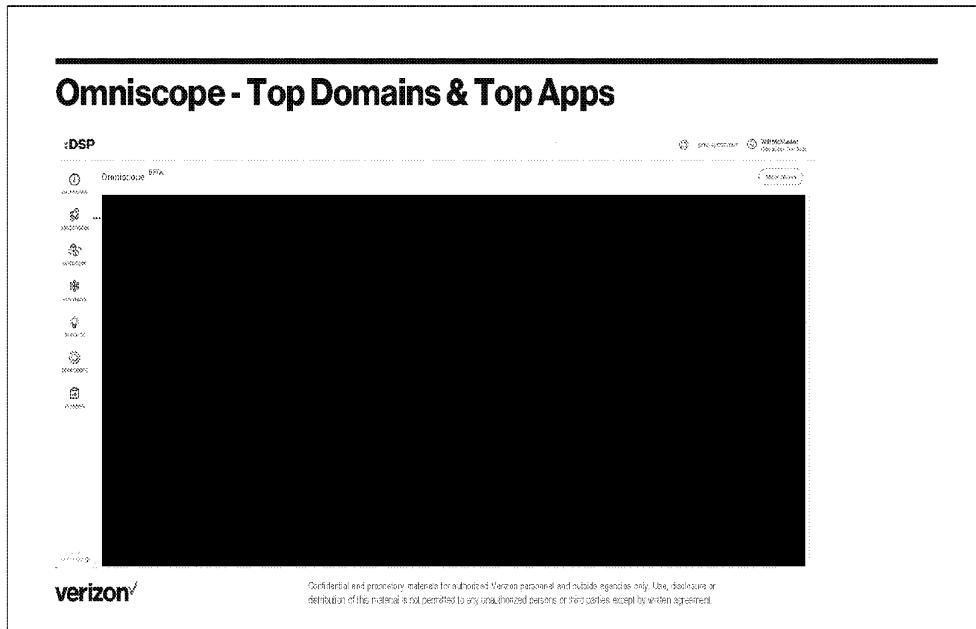
Omniscope is a new tool that lives natively in the DSP UI

A large rectangular area of the page is completely blacked out, indicating that the content has been redacted or is otherwise not visible.

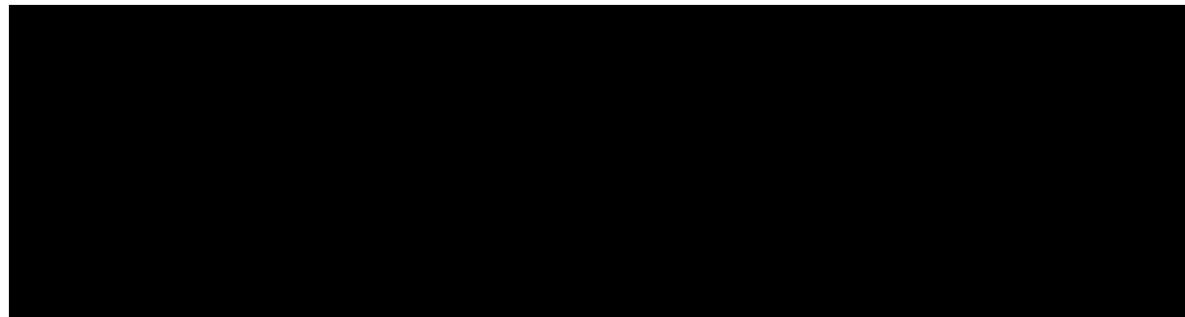
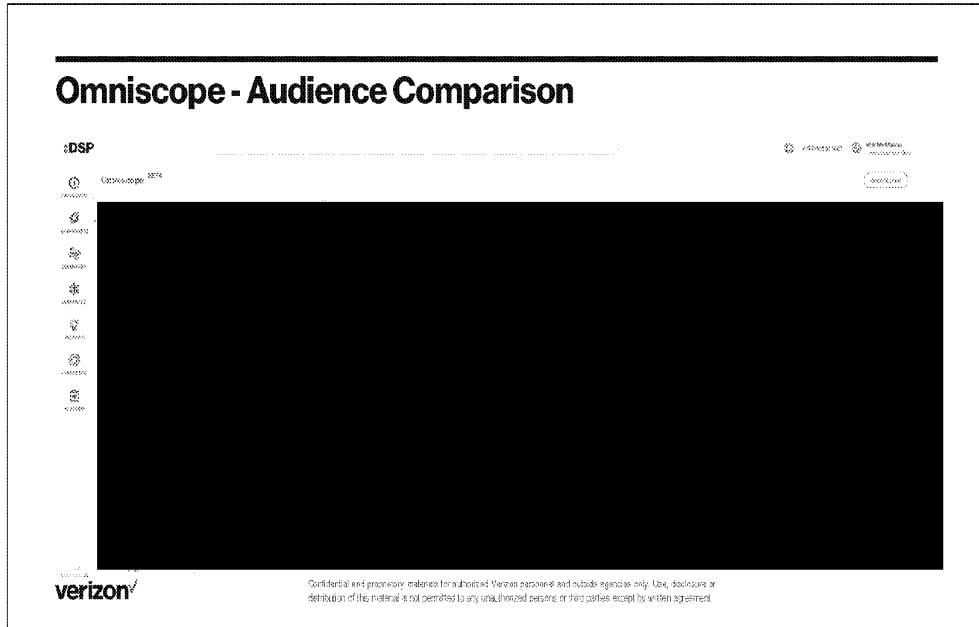


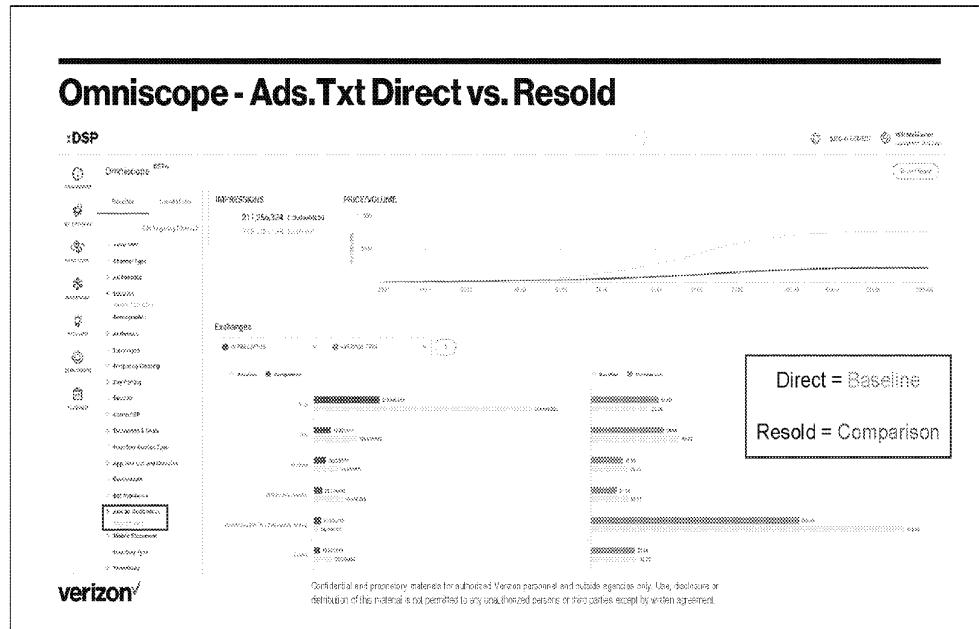


Stats by Channel & Ad Format



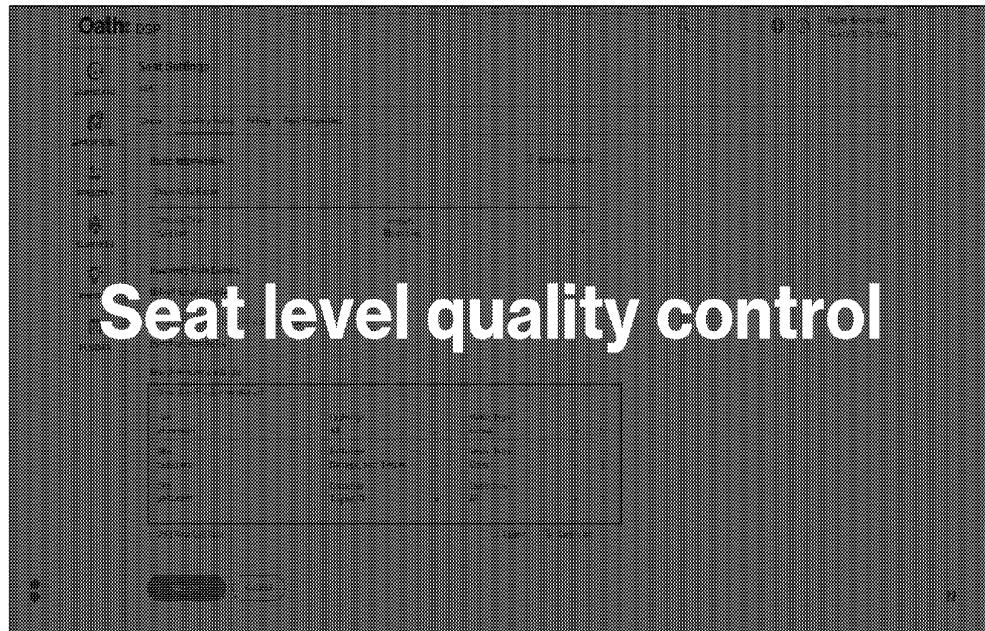
Stats by domain





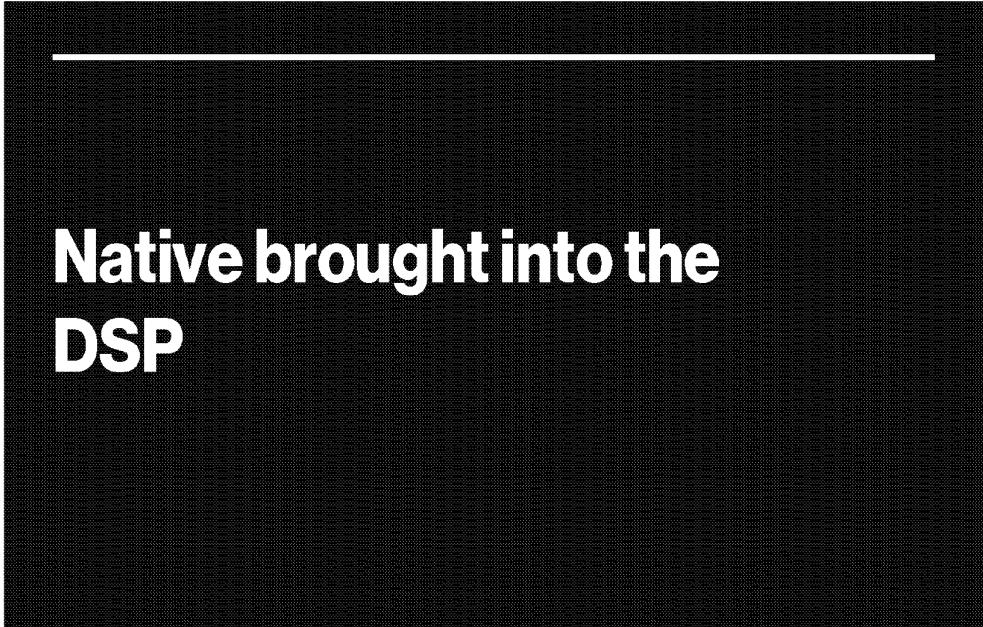
HIGHLY CONFIDENTIAL  
INFORMATION

VZGGL-CID-00000324



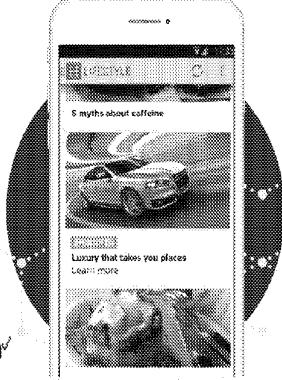
First highlight: Seat Level Quality Control

Enables Seat level administrator to set up enterprise level controls to whitelist or blacklist SSP, Publisher, Format combinations. [REDACTED]



# **Native brought into the DSP**

## Native API the DSP difference



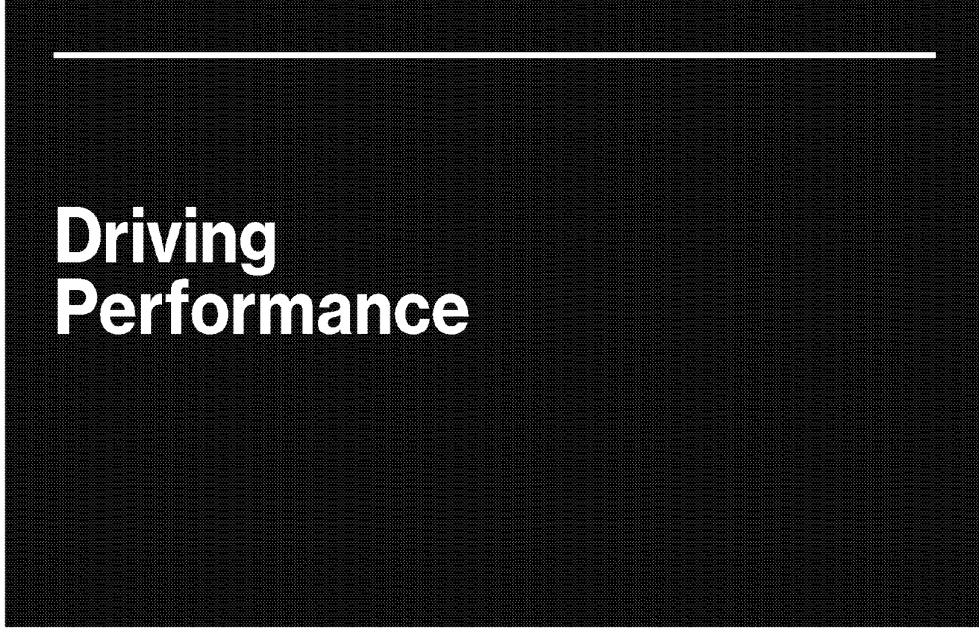
**Unified Frequency, Campaign & Reporting**  
Across Display, Video, Audio, Mobile & Native lines at campaign level

**Incremental Reach**  
Exclusive access to Native Marketplace, and access to integrations with leading native SSPs across desktop and mobile.

**Cross-Device Targeting**  
Reach scalable audiences across devices with accurate targeting and measurement fuelled by our identity graph.

**Enhanced billing and KPI metrics**  
Run using oCPM or CPCV billing type and use CPA or vCPM as a KPI

Another slide view if you want to replace slide 10



# Driving Performance

**AdLearn: Advanced machine learning**

**Crunch**

- Demographics (User icon)
- Ads Viewed (Screen icon)
- Search keywords (Search icon)
- Geography (Location icon)
- Technographics (User icon)
- Internet shopping (Bag icon)
- Click patterns (Hand icon)
- Purchase patterns (Basket icon)
- Shopping (Cart icon)
- Site visits (Up arrow icon)

**Consider**

- Adverts (Star icon)
- Device (Bar chart icon)
- Bid (Dollar sign icon)
- Frequency (Clock icon)
- Day (Calendar icon)
- Interaction (Circular arrow icon)

**Convert**

Large black rectangular box representing the final stage of the process.

**Modelling - Done right.**

**More than just a lookalike.** Modelled after your highest performing customers, using Verizon Media's quality data combined with the machine learning algorithms to bring you performance you can count on.

**1 Easy to use** Available in our DSP & Native ad platforms

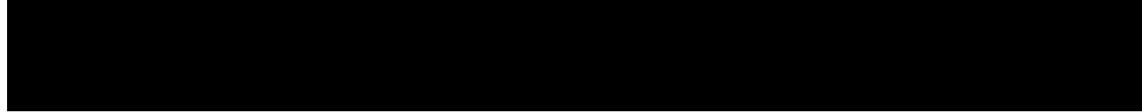
**2 Conversion-based** Audience segments are built with users most likely to convert in the near future

**3 Cross-device** Key product for performance (CPA/CPI) campaigns across devices

Conquesting   Brand Awareness   Retention & Cross-selling

Verizon media

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ACCURATE



FLEXIBLE



CUSTOMIZABLE



MOBILE



SCALE



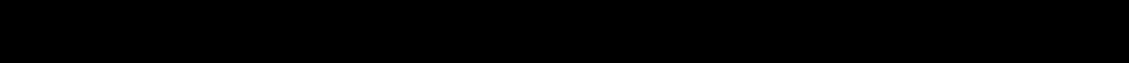
SEGMENT CREATION PROCESS

BUILD: Historical data collection of all users who have visited AOL's advertising network that align with the target

audience



USE CASES

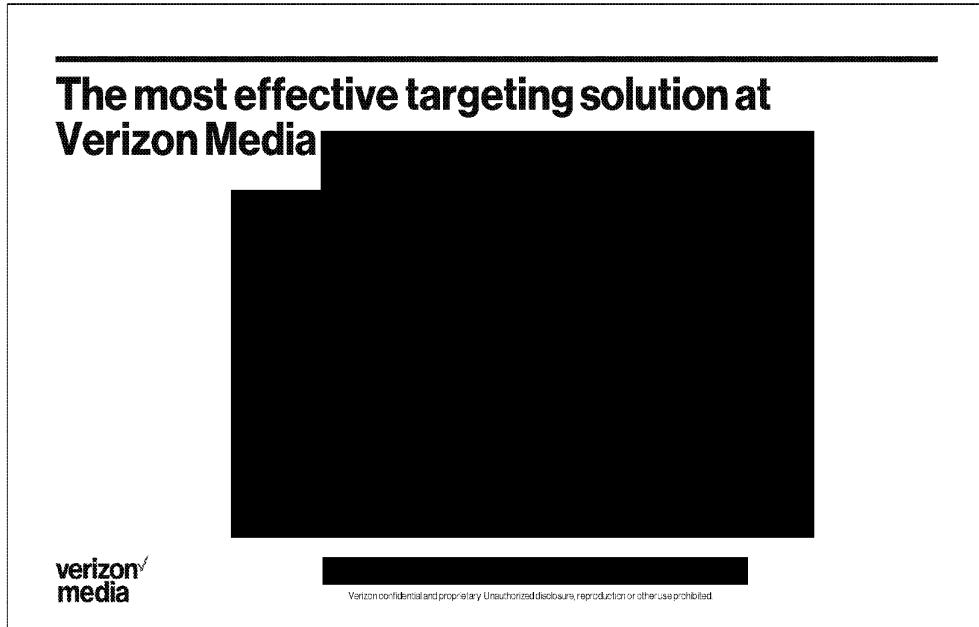


#### ACTION-BASED CAMPAIGNS

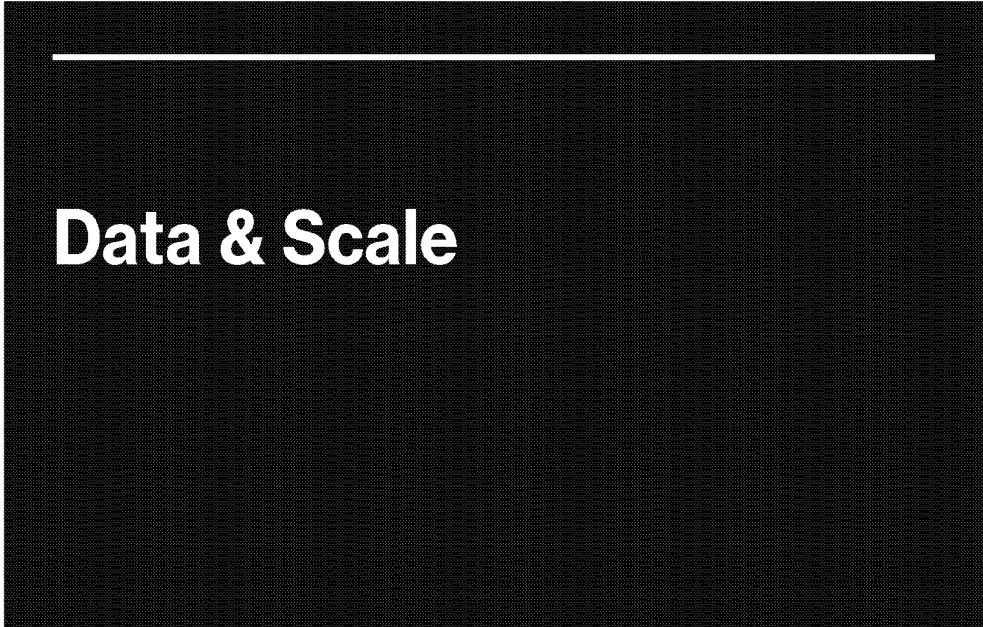
Predictive segments are consistently high performers for direct response campaigns, and are a top choice among advertisers on the ONE by AOL platform to drive specific actions efficiently.

#### BRAND AWARENESS CAMPAIGNS

Predictive segments can be used to expand brand awareness among users with a high degree of similarity to the core audience. Use this as part of a prospecting strategy to replenish the upper purchase funnel and drive lower funnel

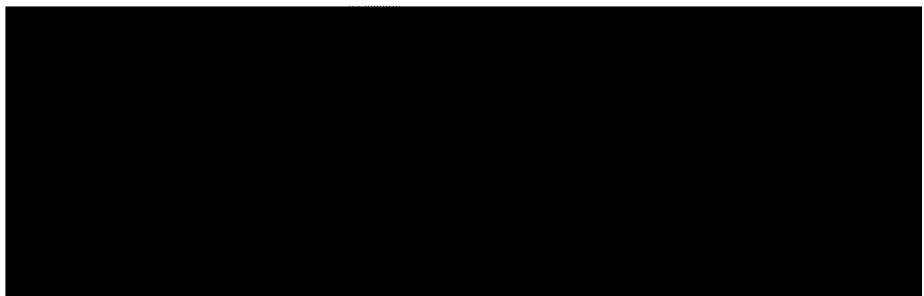


Call out the size of data set./ length of time



# Data & Scale

## Data Activation



**Best-in-class real world audience insights** prebuilt audiences to consumer behaviors and compare those audiences across a variety of data points.

**Translate insights into targetable segments**

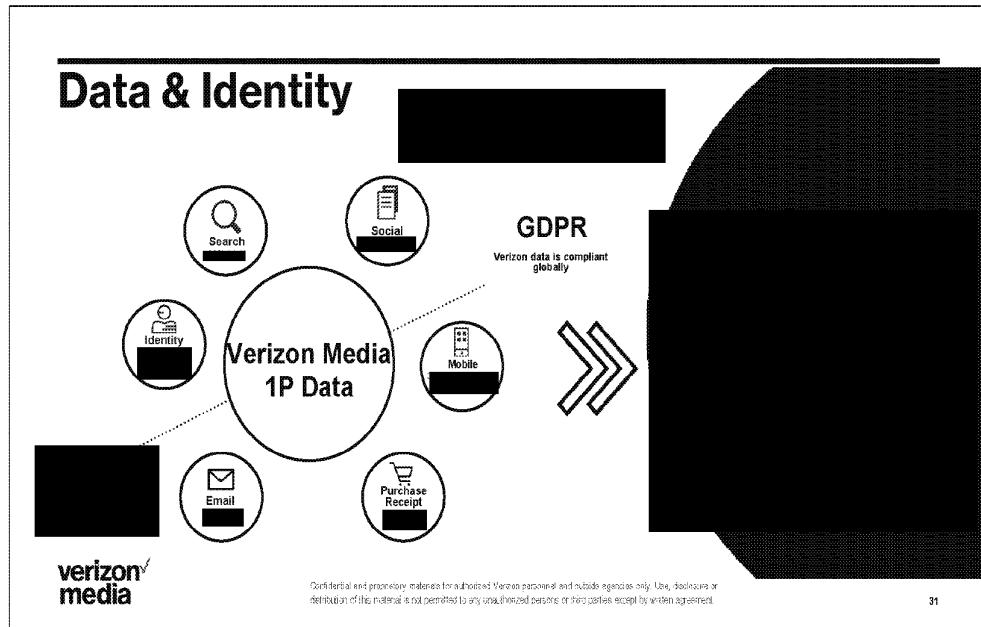
**Leverage the power of VZ's identity graph**

verizon media

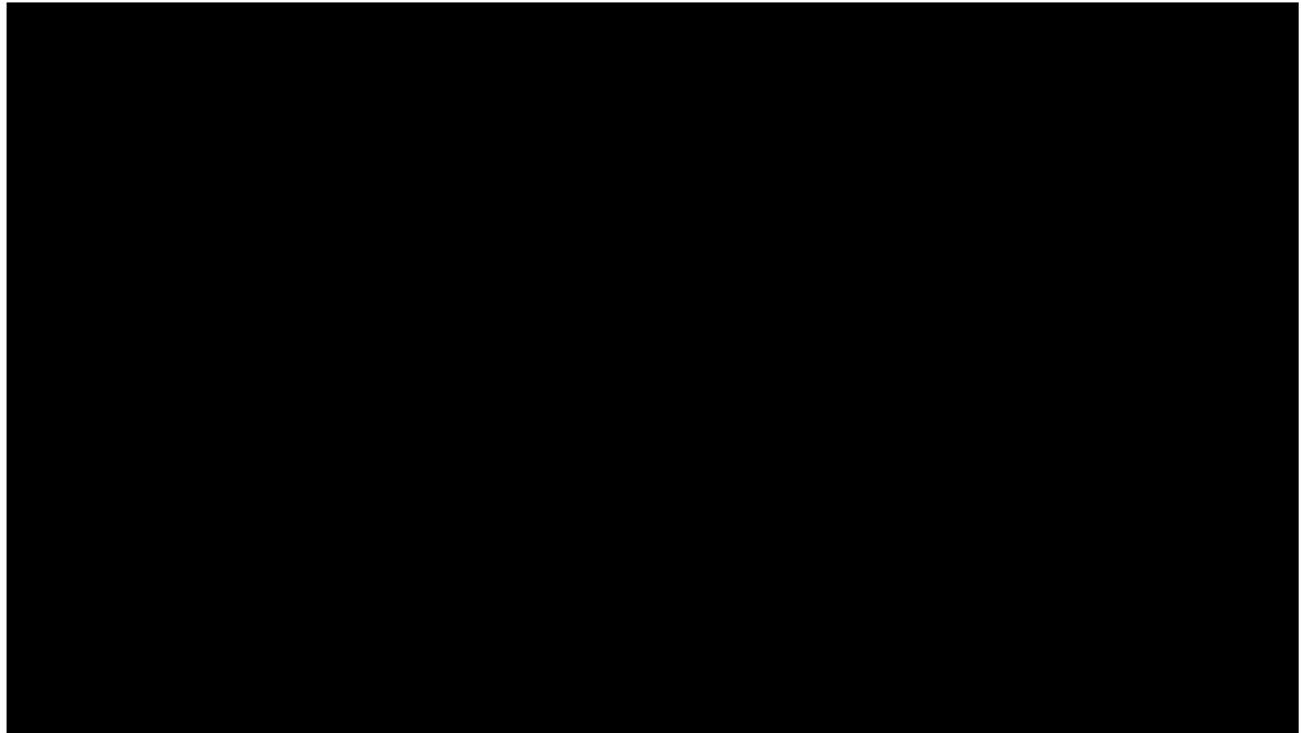
What's biggest challenge with data in Platforms? There's too much - it's almost overwhelming. Audience Insights helps solve for this - by providing a recommendation engine based on real world audience behaviors.

So what does it do?



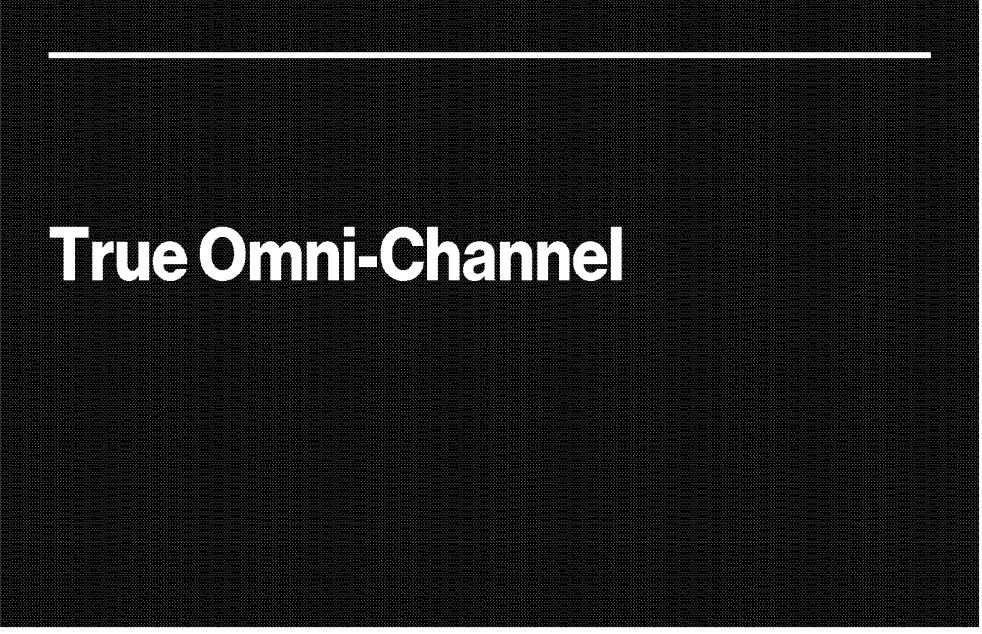


Miles to add Mobile signals & Agile ID...:

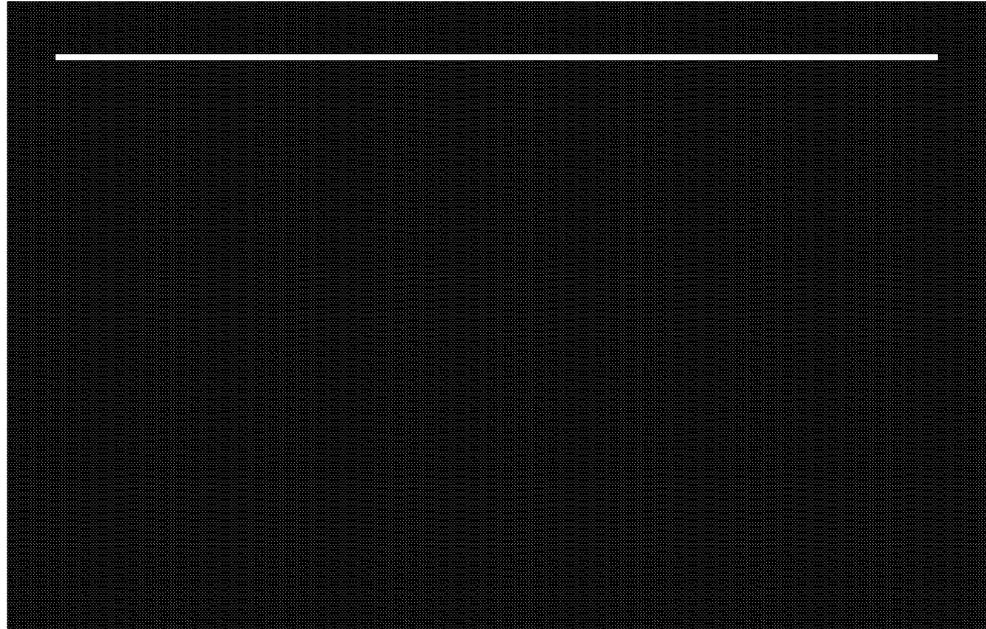


Formats to the DSP





# True Omni-Channel

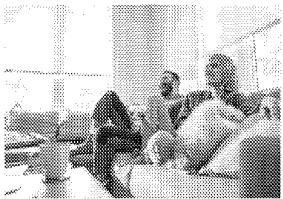


## Bring greater insight into omnichannel ad buys



### Programmatic audio

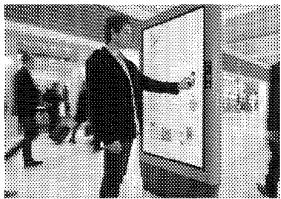
Reach engaged listeners



### Connected TV

Target engaged TV viewers

Linear TV extension



### Digital out of home

Captivate consumers across public digital screens



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## Audio

Reach engaged listeners wherever they go across top audio publishers with efficient targeting, measurable delivery and dynamic creative.

### Robust Targeting

Granular targeting options allow you to reach the people that matter most.

### Deals

Access or curate deals based on inventory type, genre or playlist.

### Omnichannel

Centrally manage campaigns that reach across channel, platform, and device.

### Personalized Audio

Leverage the power of personalized, dynamic audio via A Million Ads.

SSPs

rubicom

TRITON

dak

adswizz

verizon media



Reach listeners across top publishers



and more....

35



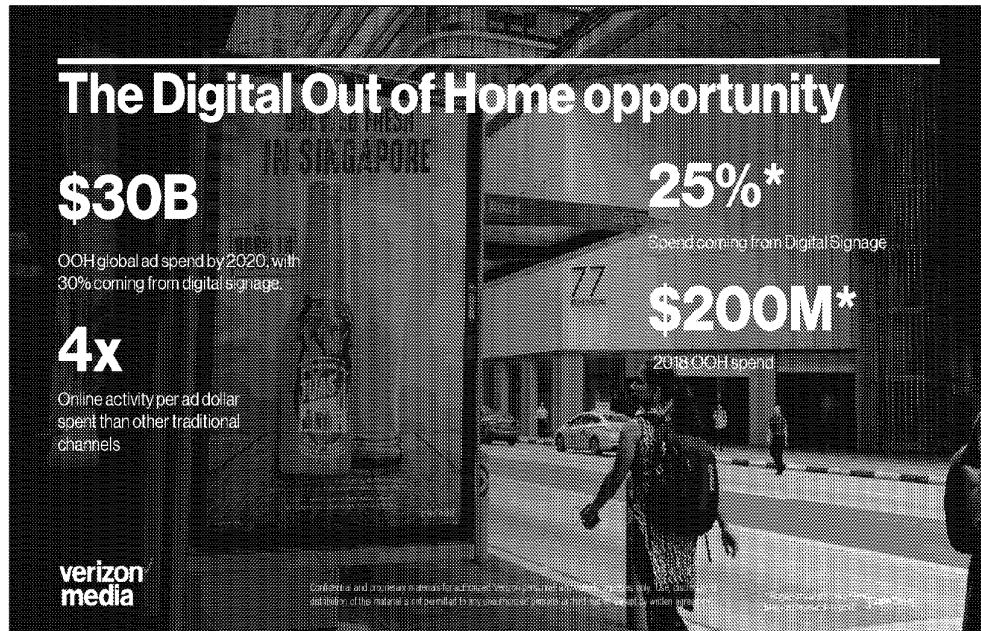
## Connected TV

Activate omnichannel strategy and reach highly engaged TV viewers at scale with premium CTV supply through Verizon Media's DSP.

<b>Robust Targeting</b>	<b>Deals &amp; Supply</b>
<b>Now</b> - Audience (1 <sup>st</sup> & 3 <sup>rd</sup> ), device, make/model, geo, time of day and day of week "Beta" <b>Next</b> - Contextual targeting, household demo	<b>Now</b> - Access to top CTV supply makes it easy to select or curate the perfect deal <b>Next</b> - Enhanced CTV Deal discovery
<b>Frequency capping</b>	<b>Measurement</b>
<b>Now</b> - FCAP by device <b>Next</b> - FCAP by household	<b>Now</b> - Brand lift studies & Location Lift <small>*Requires approval and feasibility w/ TheyWantEfx@VerizonMedia.com</small>
<b>verizon media</b>	Daily avail Household IPs (US) Leading SSPs Channels

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eMarketer 2019 - Programmatic Advertising Beyond Display

(2) Nielsen/OAAA, OOH Online Activation Survey, 2017

The OOH Market is a steady and growing \$30B market with digital surging to make up about 30% of spend by 2020. The US is expected to reach \$8B. This feature DSP was released to meet the growing demand for Digital Out-of-Home inventory.

## Streamlined Targeting

**Ad formats**

Static and silent video  
Common sizes: 1400x400, 1080x1920

**Targeting**

- Location-based
- Demographic-based
- Location interest-based
- Weather Targeting
- Day Parting

**Metrics & reporting**

As DOOH is a one-to-many format, we evaluate opportunities using audience impressions.

Cost per audience impressions is calculated using the impression multiplier measured by Geopath, Nielsen, or Cubic and are available in a DOOH report.

Impression Multiplier is the audience impression count. It is passed in the bid request and signifies the # of users likely to view the ad.

New Line

Standard

**Basic Details**

Line Name:  Show  Preview  Preview + Preview

Line Type:  Standard  Custom

Standard Options

**Targets**

- Standard Device
- Mobile Device
- Geopath Multi-Device Device

**Video**

- Standard Video
- Mobile Video
- Geopath Multi-Device Video

**Audio**

- Standard Audio

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## Plan in one place

### Considerations

- Location
  - *Proximity to POIs*
- Venue type
  - *Big & bold vs Informational*
- Venue sector
  - *Travel, Sports, Shopping, Social*
- Ad type
  - *Video, Static, Audio-on video*
- Screen size
  - *Impact vs personal*

Digital Out-Of-Home Planner

4783

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[key points - visual of screens location using filters to determine which to include]

## Access to Beta programs

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# Appendix

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# DSP High-Level Roadmap

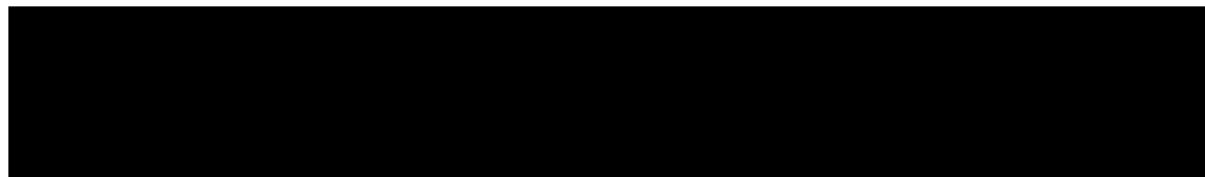
## Q3-2019

Slide 3 of 10 | Date: 07/26/2019

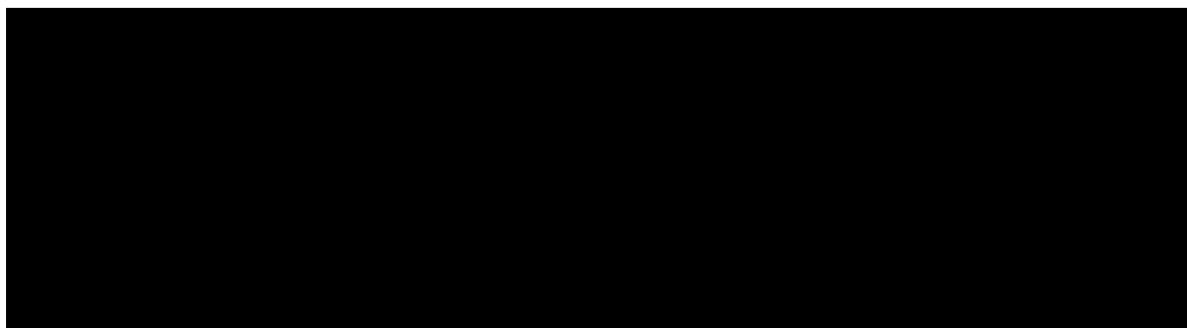
verizon  
media

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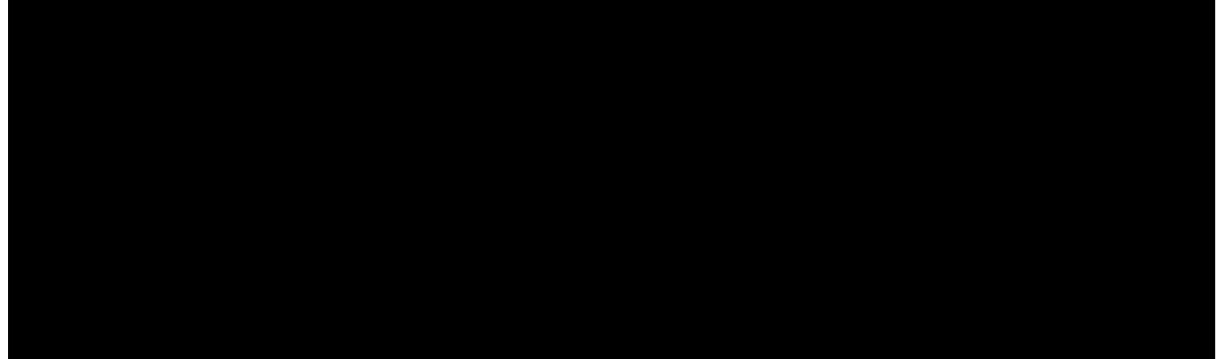
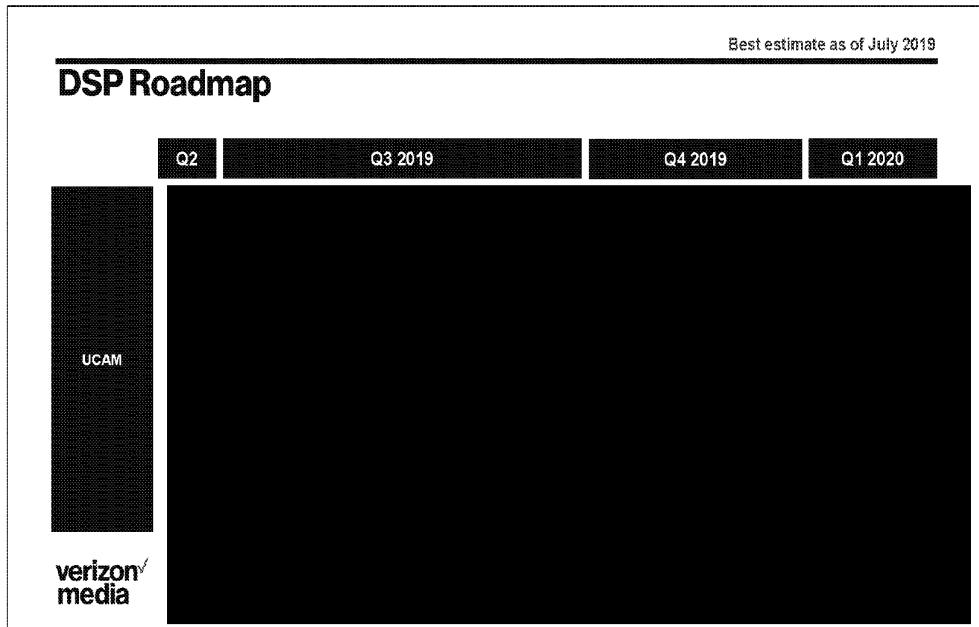
42

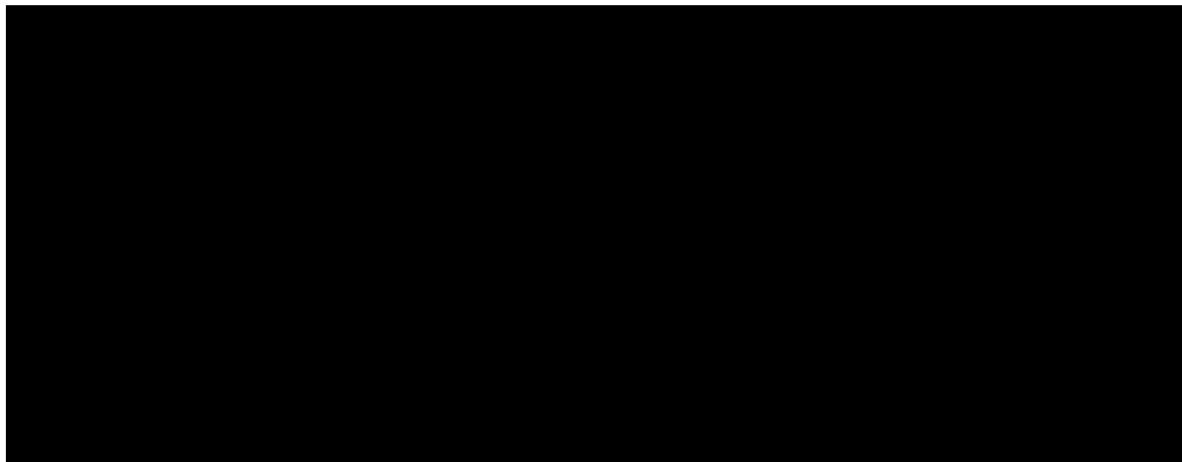
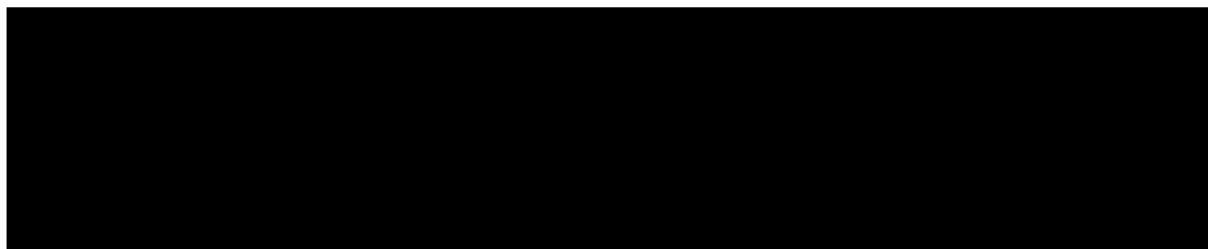


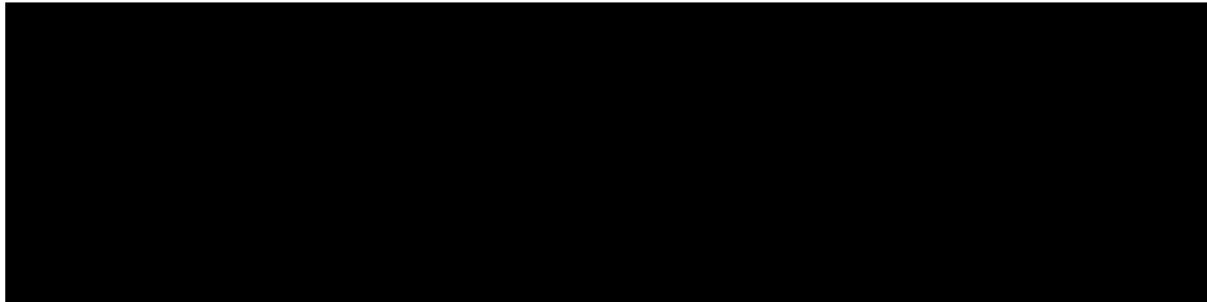
UCAM











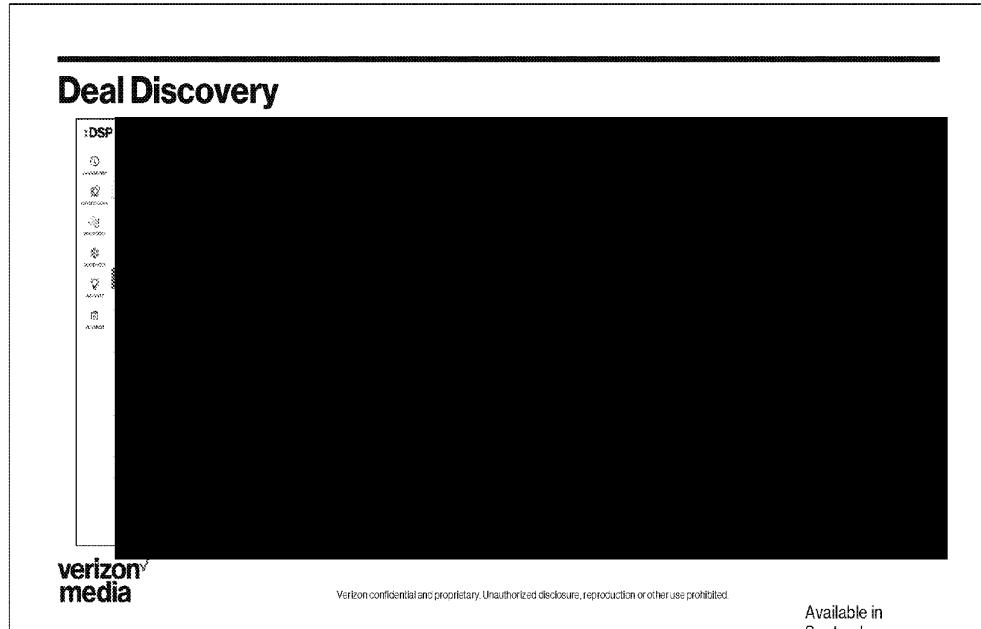


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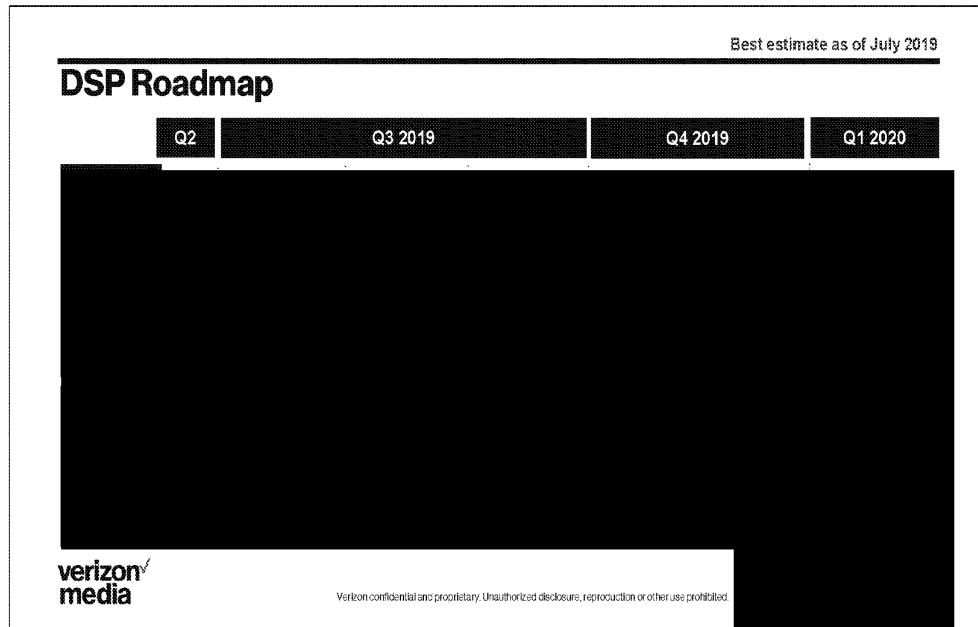
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Deals & PGD

[REDACTED]

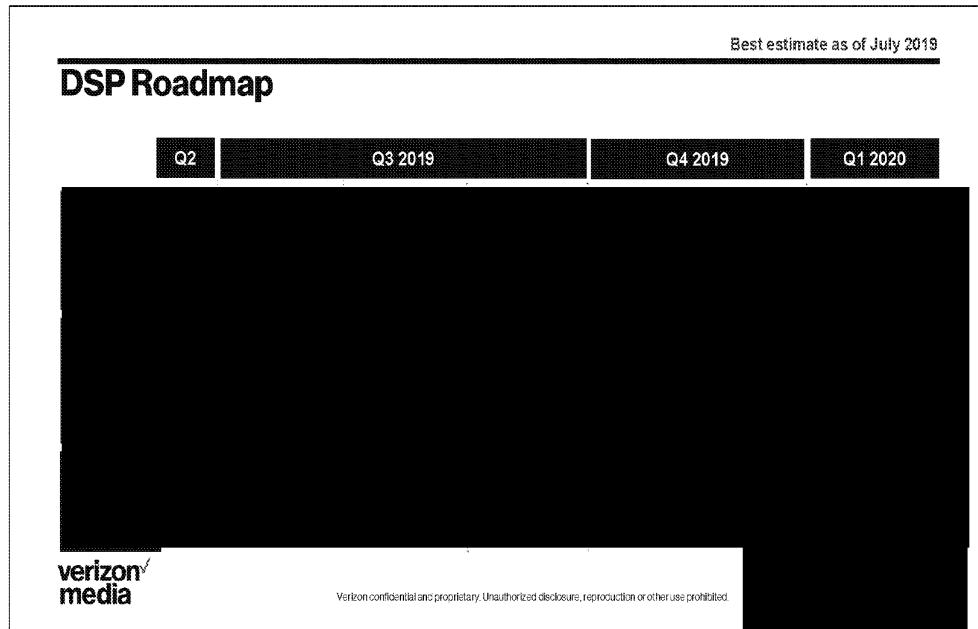


[click to next slide]



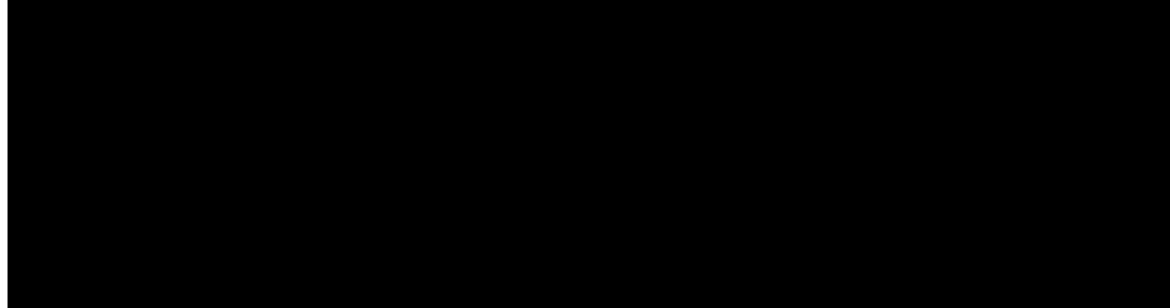


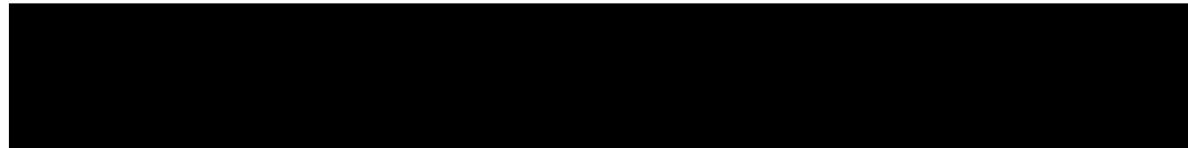
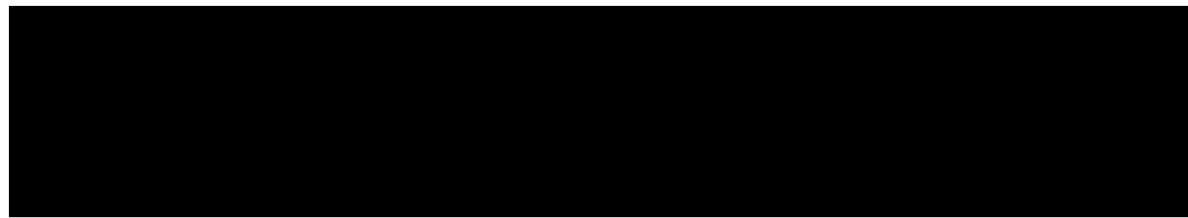
[click to next slide]



[click to next slide]

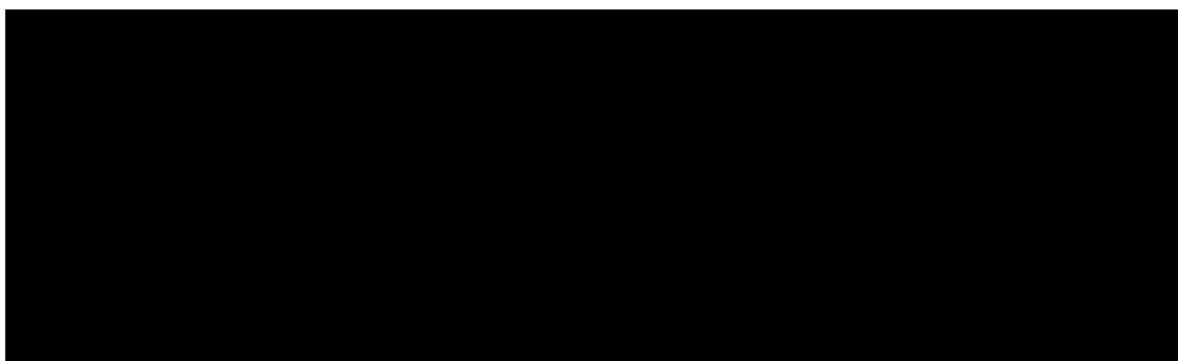
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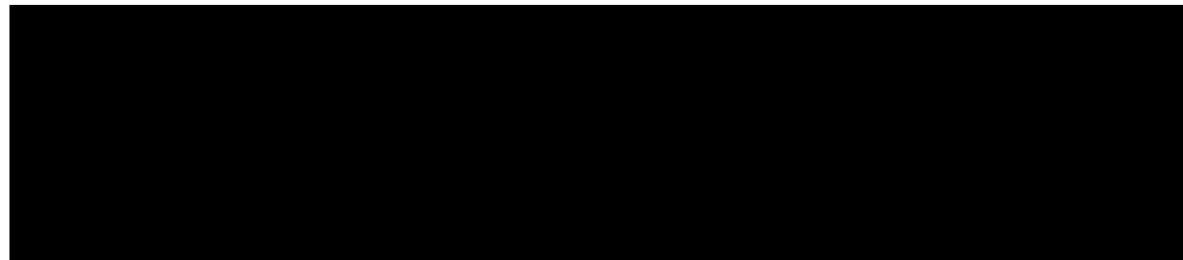
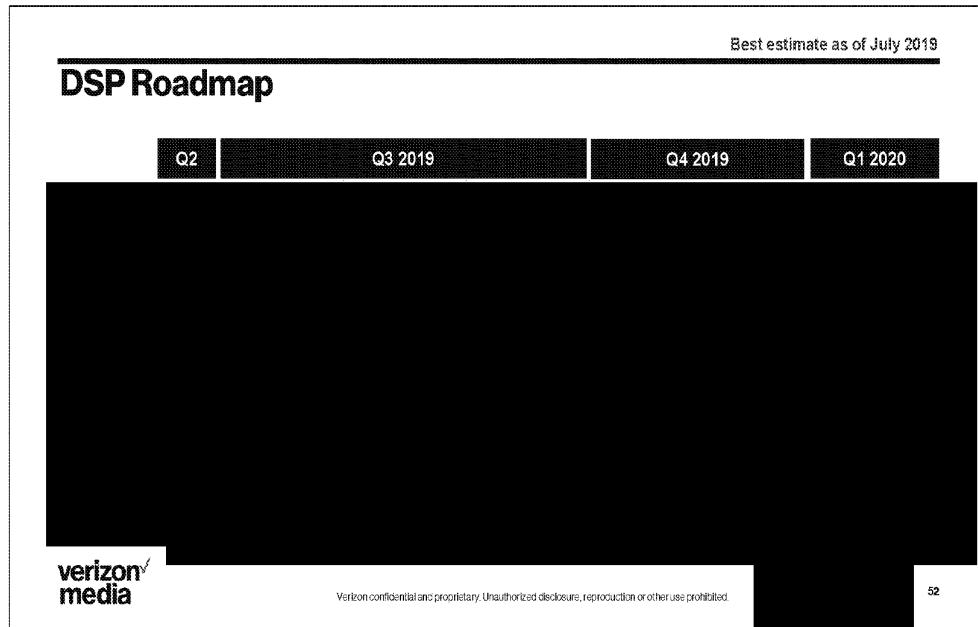




[click to next slide]

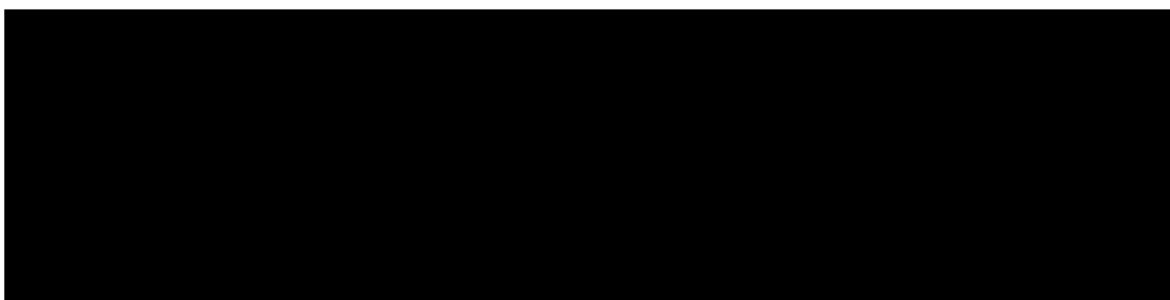
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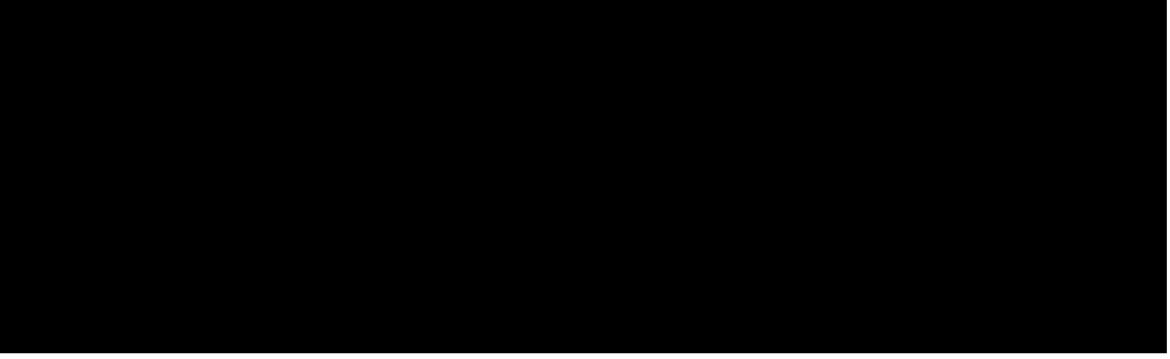


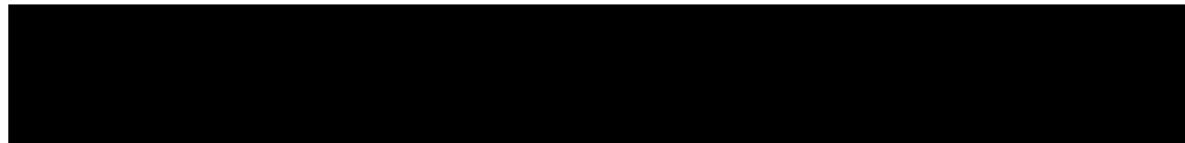
[click to next slide]

Optimization



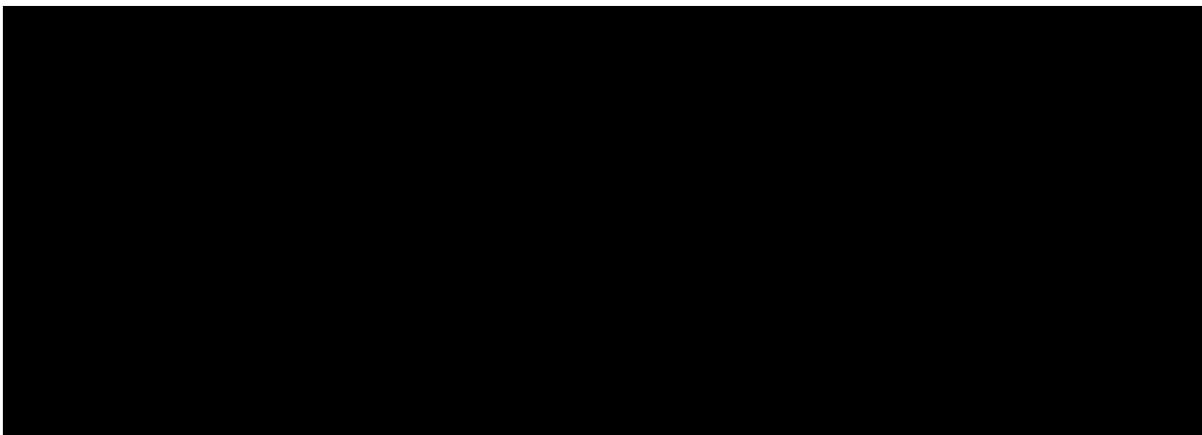
Workflow

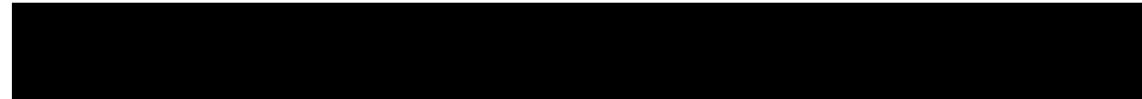
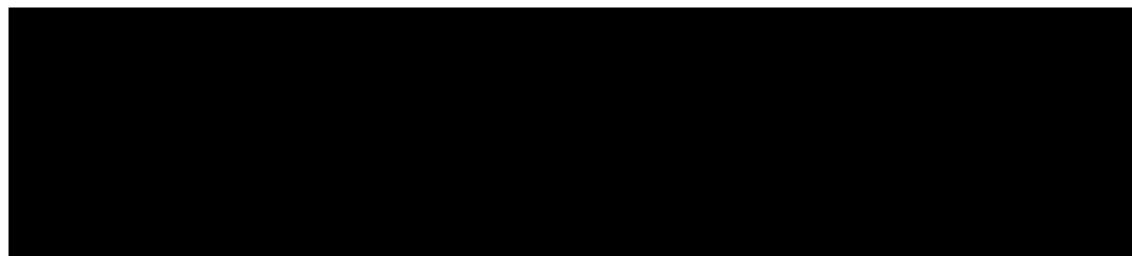
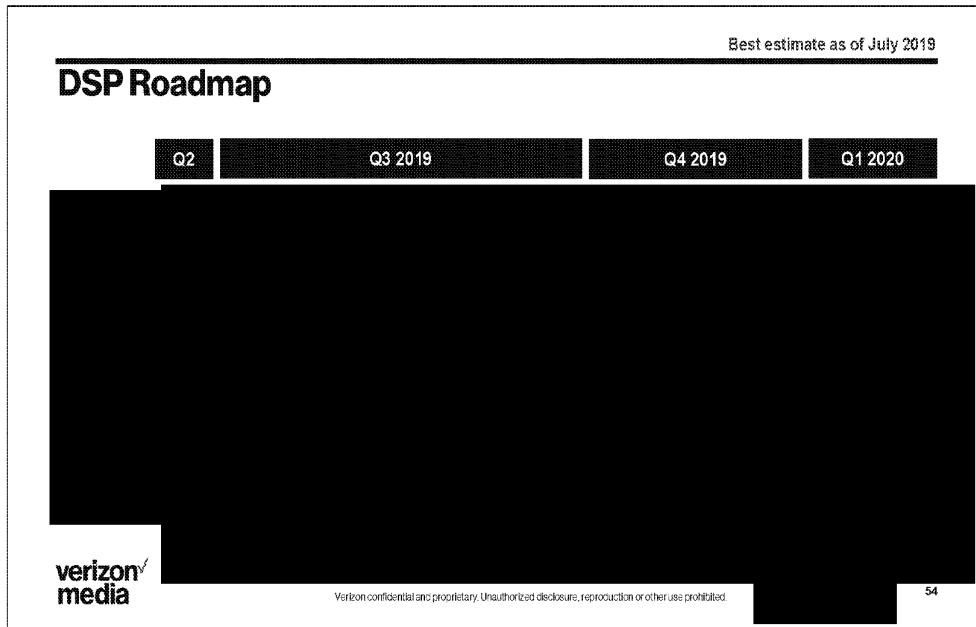




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Targeting & People Marketing





Reporting





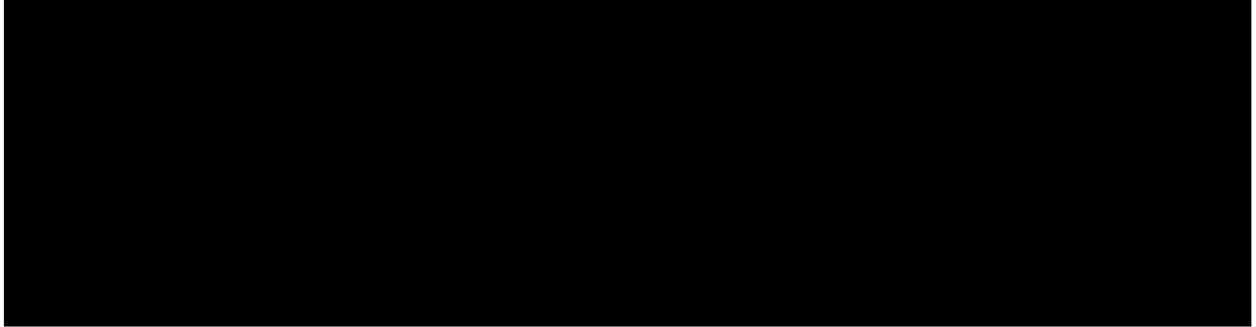
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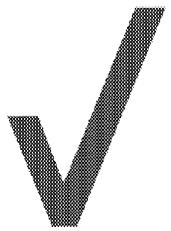
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]





## **Exhibit 5**

yahoo/  
finance

TC TechCrunch

yahoo/  
sports

HUFFPOST

MAKERS

yahoo/  
news

engadget

yahoo/  
mail

Aol.

yahoo/  
entertainment

BUILD  
co.

yahoo/  
lifestyle

RYOT

# Harnessing Supply Path Insights

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media

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# What is Supply Path Optimization?

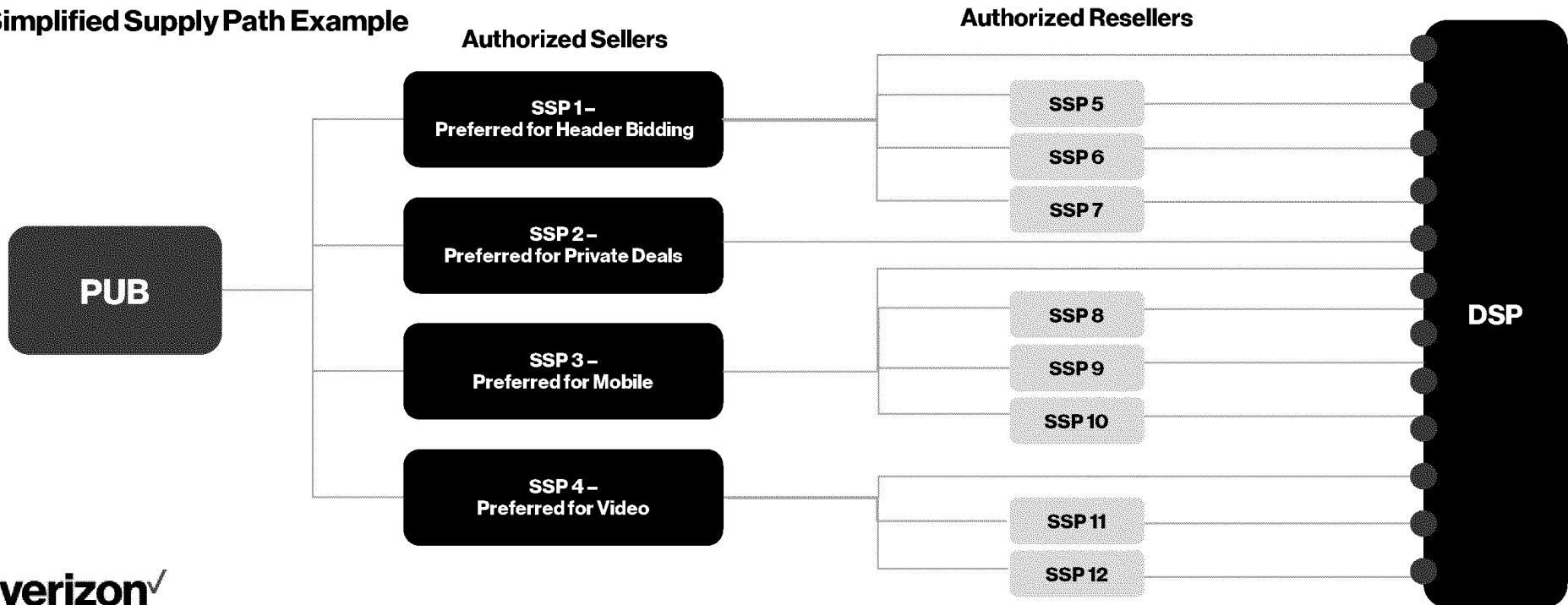
Supply path optimization is an initiative to improve quality and supply by weeding out the bad inventory to reach the good.



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# Traffic duplication due to header bidding and re-broadcasting

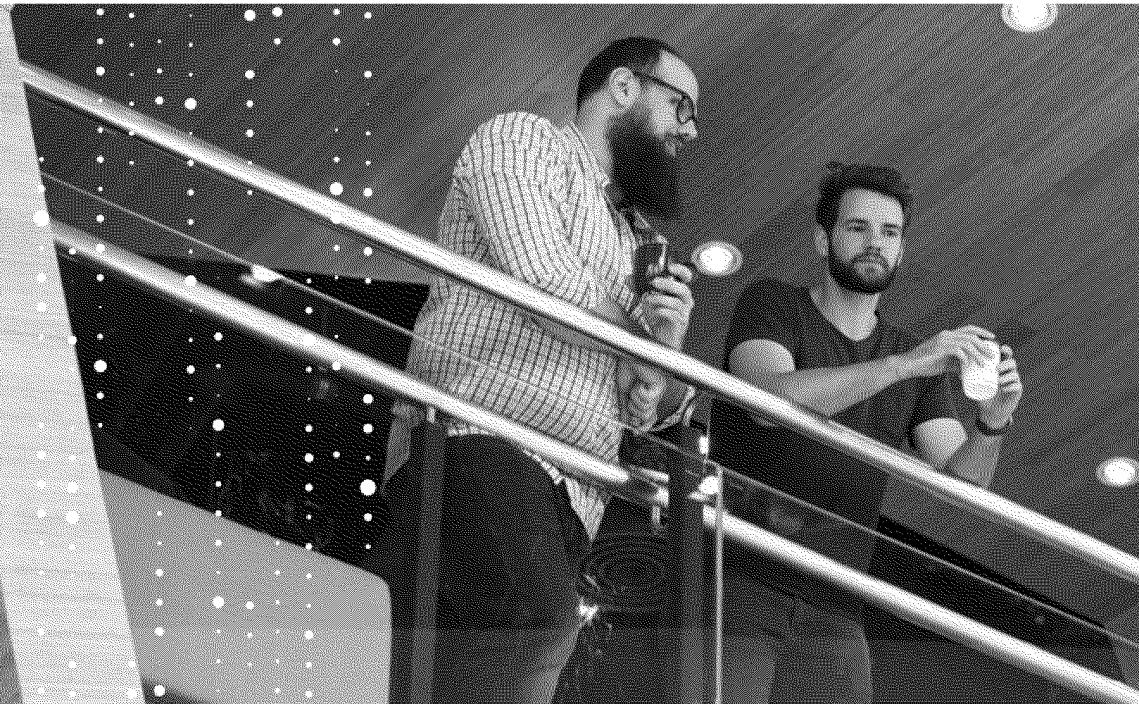
## Simplified Supply Path Example



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# Why should you care?



## Scale

Header bidding and resulting SSP bid duplication are overloading programmatic platforms with inventory increasing costs, decreasing transparency and making bidding decisions more complex.



## Enhanced brand safety

An increase in fraud due to more shady vendors in the supply chain has advertisers looking for greater transparency and brand safety assurances.



## Efficiency

SPO aims to offer a calculated solution for increasing ad efficiency while reducing fraud in the advertising ecosystem.

# End-to-end Transparency

## Ads.txt

Publisher txt file of all the exchanges they work with showing who is authorized to sell or re-sell their inventory.

## sellers.json

SSP version of ads.txt, a standalone file that identifies the seller ID, the publisher name, domain, and directness of the relationship.

## App-ads.txt

Version of ads.txt for mobile in-App and OTT advertising

## SupplyChain Object

A record of what has happened to an impression, allowing buyers to see the entire supply chain for a particular bid request.

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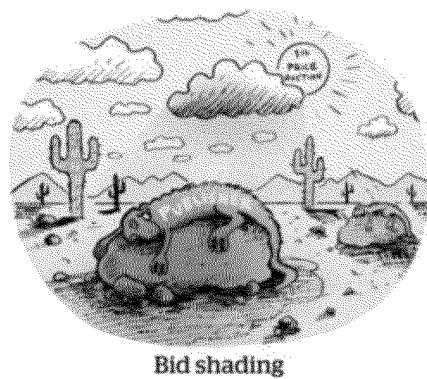
# Fair Auction mechanics

ADWEEK 40

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AD TECH & MAR TECH

## After Months of Preparation, Google Set to Roll Out First-Price Auctions



Marketer PRO

Search for marketing, media, advertising & consumer info

Topics · Industries · Geographies · Reports · Forecasts

## First-Price Auctions Are Driving Up Ad Prices

Ad buyers should adjust their bidding strategies

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THE PROGRAMMATIC PUBLISHER

Programmatic advertising is preparing for the first-price auction era

The Drum.

NEWS

## The Growing Need for Auction Mechanic Transparency

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# First Price Penetration

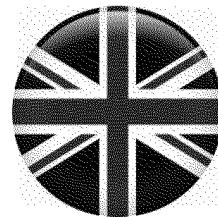
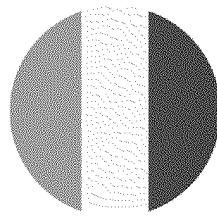
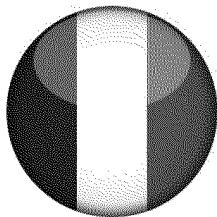
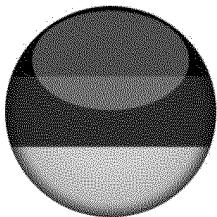
85%

83%

77%

86%

84%



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Stats pulled from Omniscope Oct'19

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# Who should manage Supply Path Optimization?



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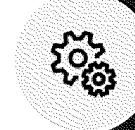
# Verizon Media's SPO Approach

Our approach to SPO ensures advertisers find the most efficient paths to high-quality, high-value inventory that meets their goals.

We've taken critical steps in analyzing our own supply paths and implementing changes, including:



**Optimize QPS**



**Implement machine learning**



**Promoting high quality aggregators**



**Removing duplicate domains**



**Turning off SSPs & connections lacking a unique supply**



# Bid shading on first-price drives performance

## How it works

01

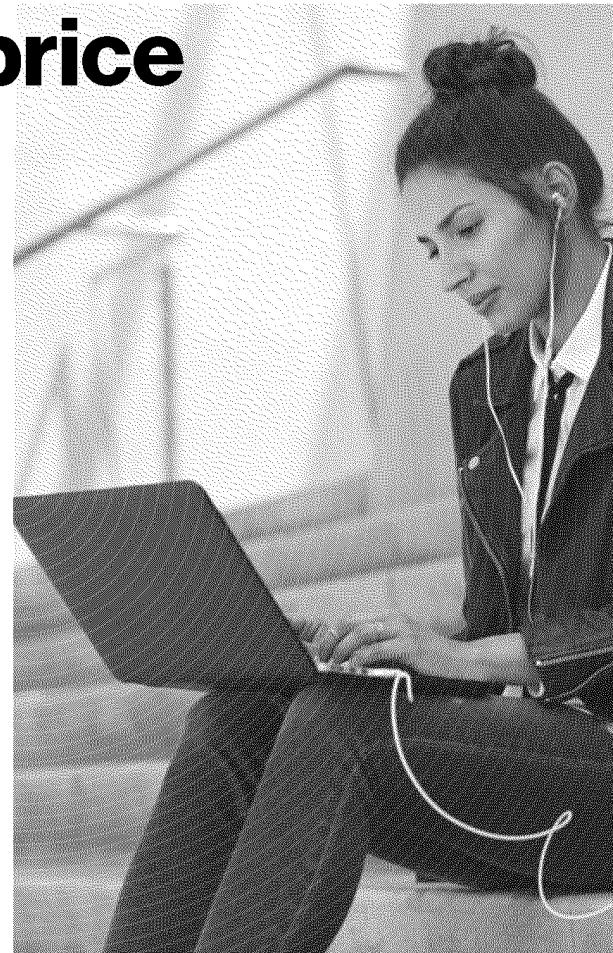
Bid-shading on first-price inventory automatically adjusts bids based on historic clearing costs.

02

Bid-multipliers offer more control over prioritization and bidding manipulation of first- and second-price inventory.

03

We offer bid-shading at [REDACTED] to the advertiser. Transparent reporting shows the initial bidder CPM and shaded CPM.



## Performance benefits



bid-shading of initial first-price CPM



decrease in overall campaign CPA



decrease in overall campaign eCPM

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# Enhanced bidding logic

## Bid shading

Algorithmic bid shading to mitigate against overbidding in first-price & non-transparent second-price auctions



Always  
on



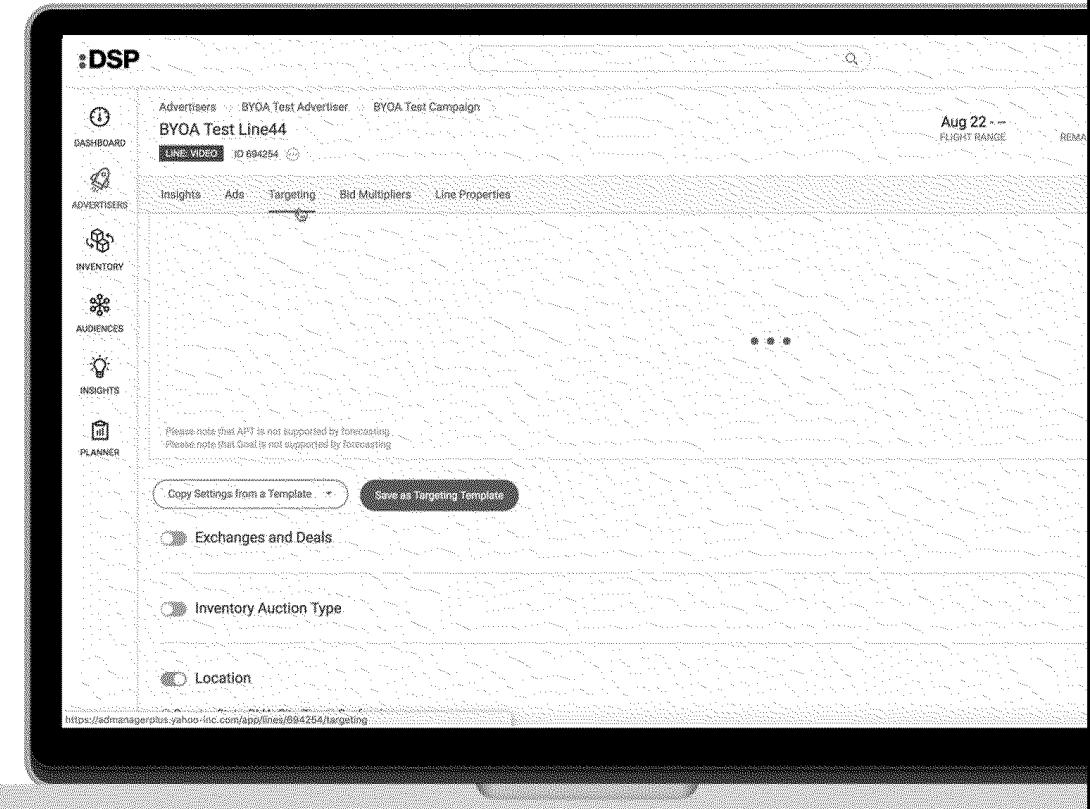
Reporting



Targeting



Savings  
Transparency



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SEARCH

User Account  
Operation Test Seat

**Seat Settings**  
SEAT #7

Users Inventory Rules Billing Seat Properties

**Basic Information** >Delete this rule

New Rule Name:

Domain Type: Site list Category: Black List

**Inventory Rule Details**

Upload list of sub rules

Drag and drop CSV here or choose file

Download sample file

Search or enter a sub rule

Search sub rules by site url

Site	Exchange	Media Type
[REDACTED]	All	Video
[REDACTED]	Exchange	Video
[REDACTED]	Exchange	All

+ Add New Sub Rule Export Clear List

Update Cancel

# Seat level quality control

---

# Transparency on the Supply Path

ADWEEK 40

PROGRAMMATIC

## How Media Buyers Are Downsizing Their Number of Ad-Tech Partners

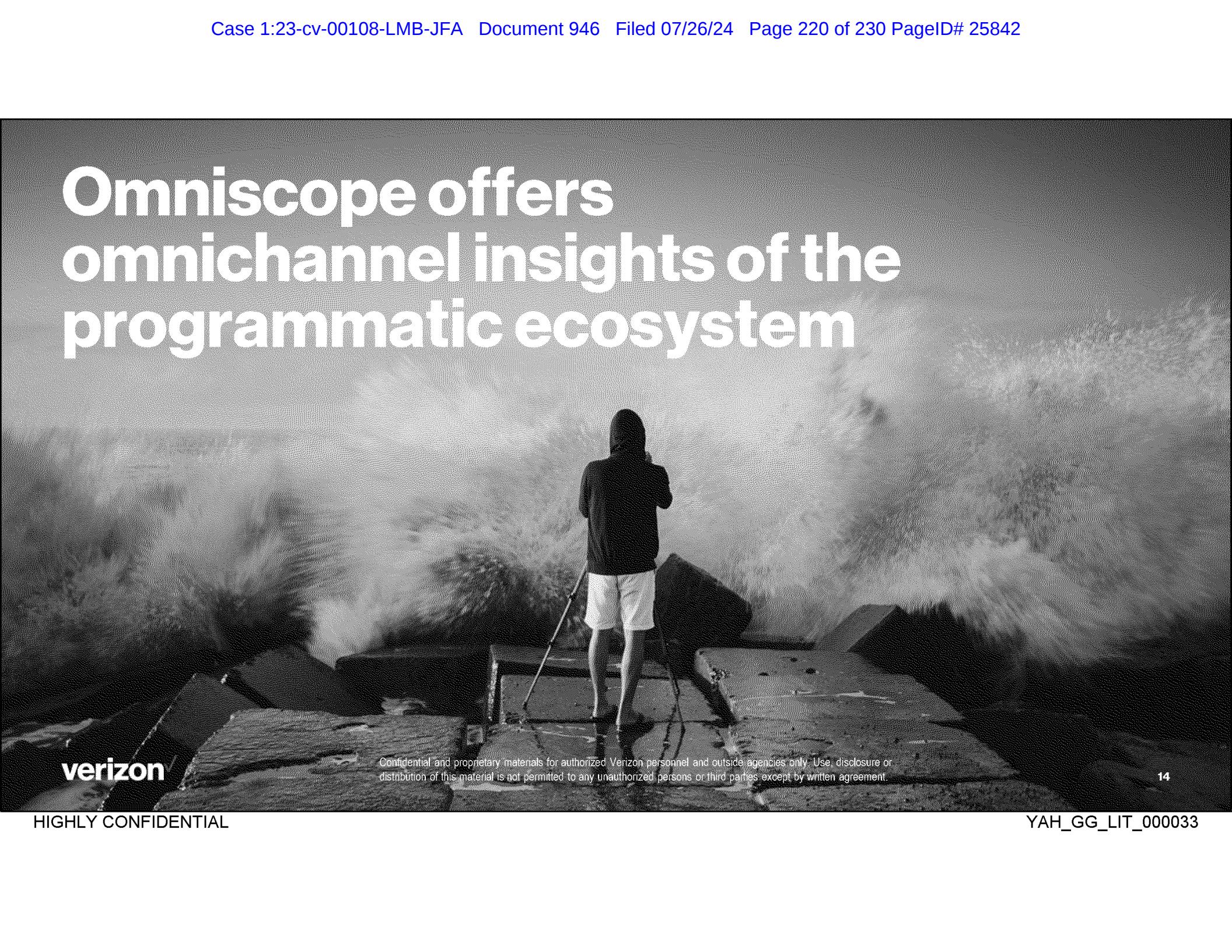
Concerns over opaque practices prompt them to probe auction mechanics and reduce SSP relationships

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# Omniscope offers omnichannel insights of the programmatic ecosystem



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# The Omniscope advantage

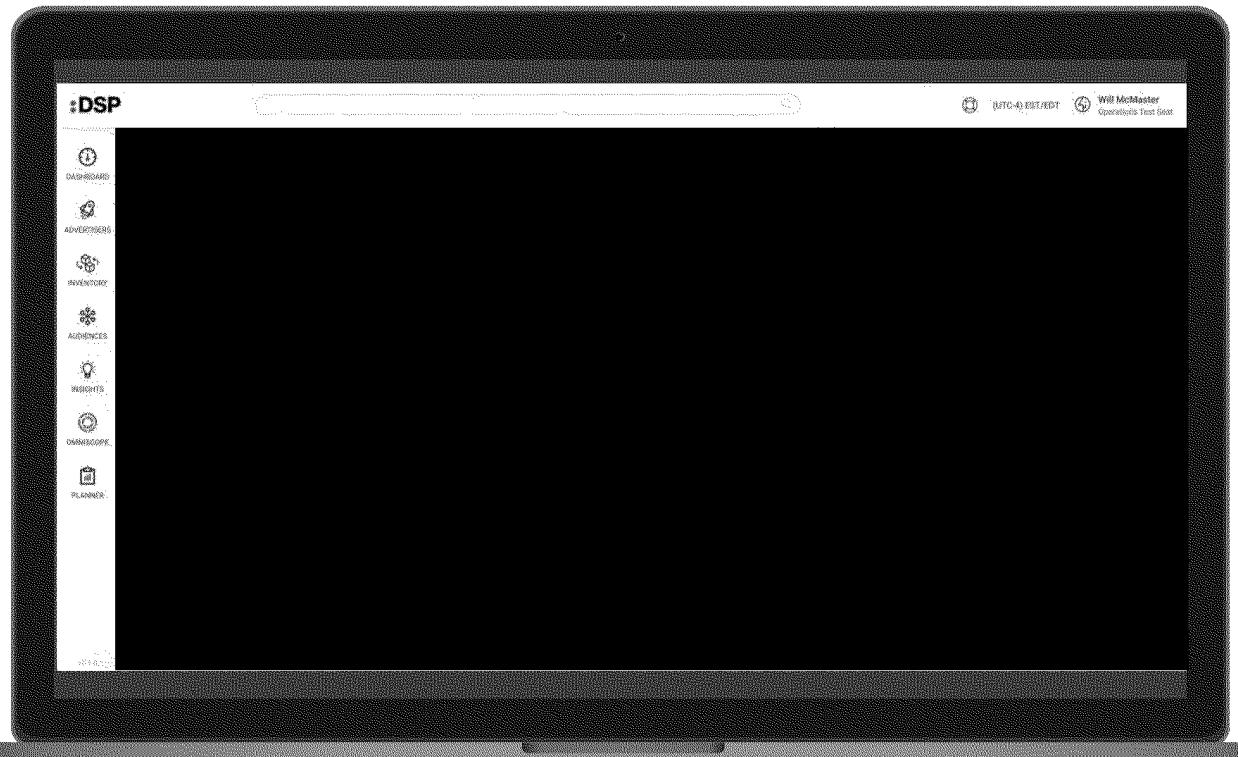
## Greater transparency

Easily access a transparent, multi-dimensional view of omnichannel supply paths

## Unmatched insights

## Increased efficiency

Find the best path to your audience and efficiently allocate media spend across all channels



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# How does this benefit the buyer

**Supply path  
transparency**

**Powerful  
insights**

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# Scenario 1: Domain analysis

## Auction dynamics

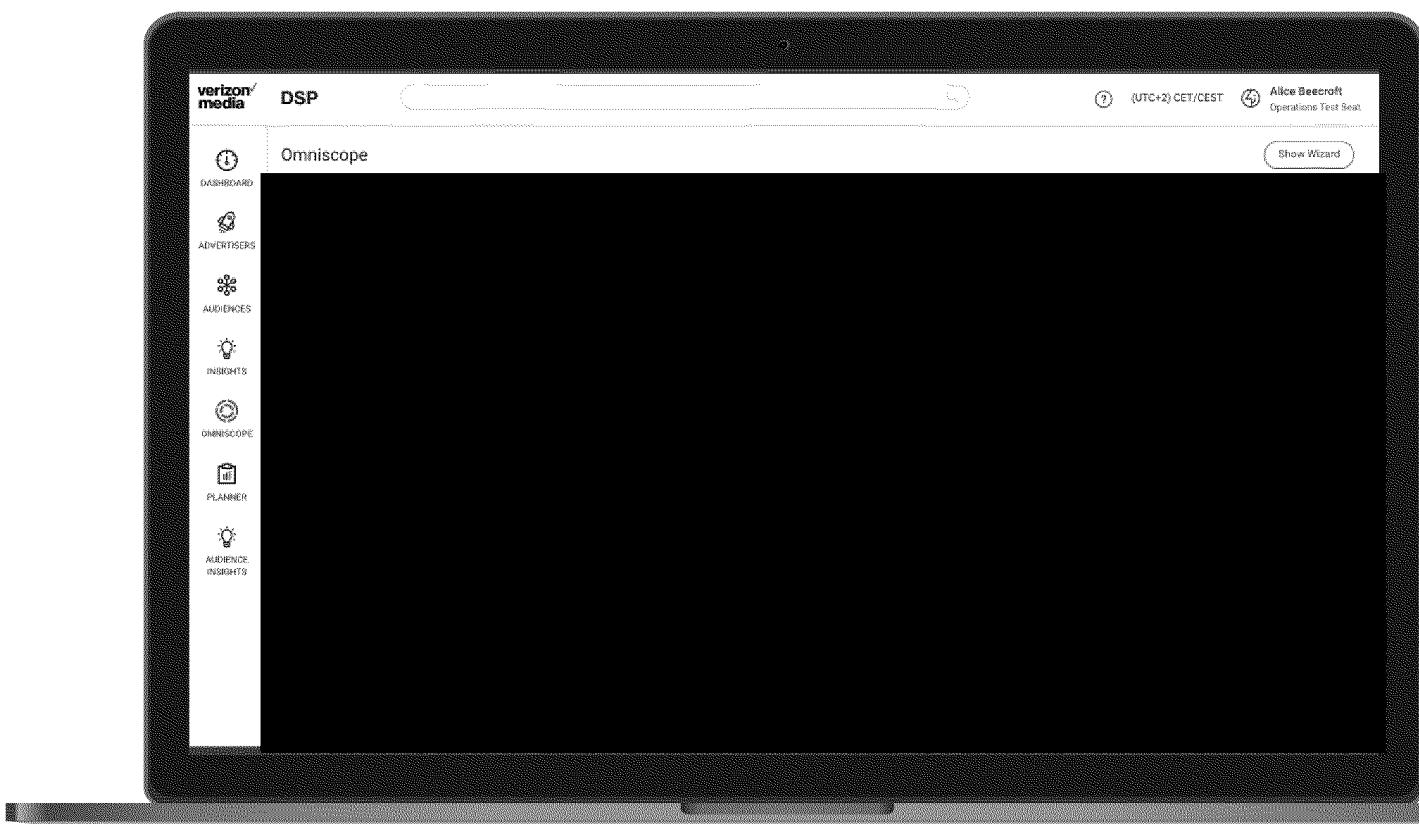
First price supply is not always more expensive.

## PMP creation

Average CPMs show where PMPs could be negotiated at the right price.

## Max bid

Setting of a lower max bid would still allow access to scalable supply



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# Scenario 2: Understanding the best path

## Compare

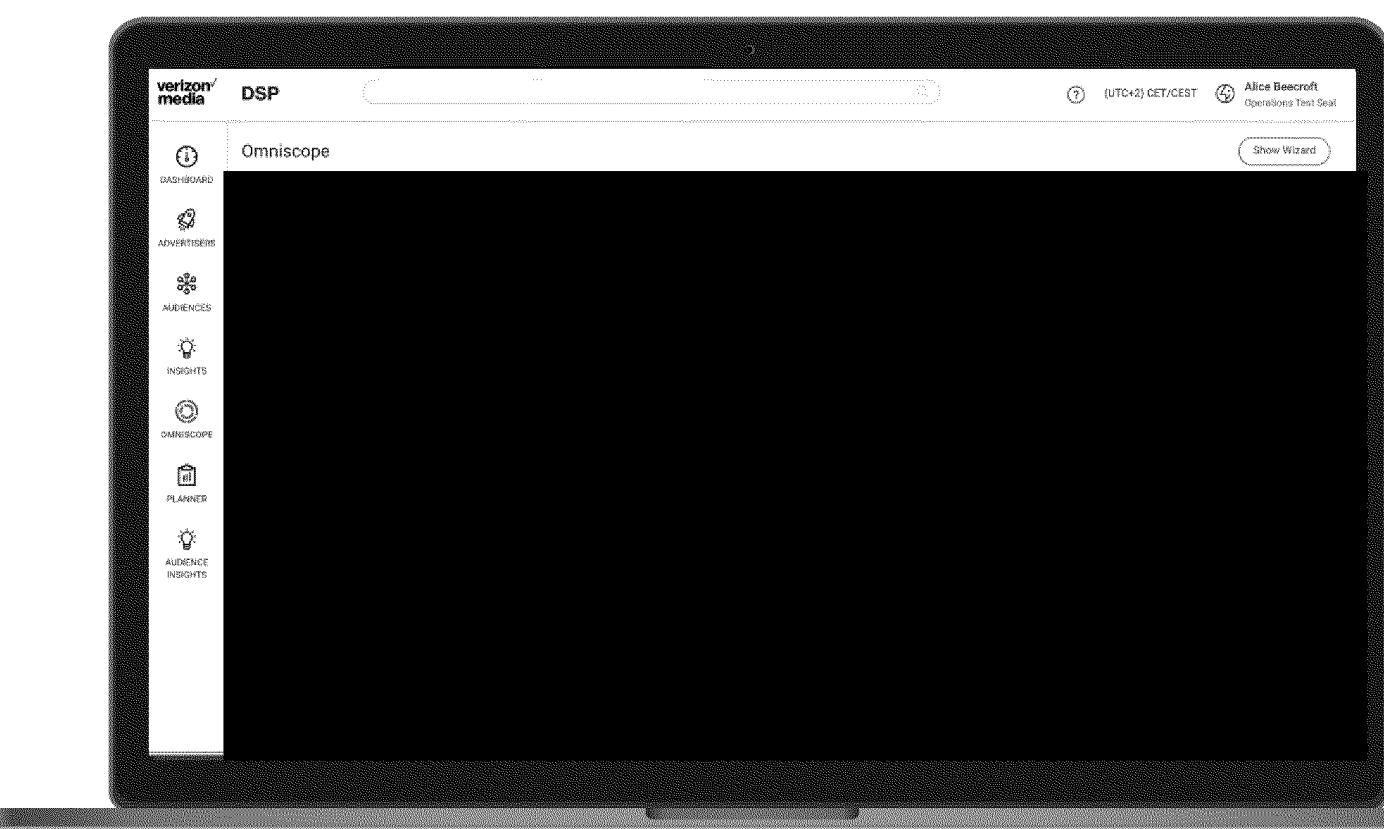
Use baseline and comparison to compare two different scenarios to understand direct vs reseller paths for domains

## Ads.txt

Review average CPMs to show whether blocking resellers is the right path.

## Formats & Devices

Review if bid multipliers should be used for ads.txt based on device type and if creative sizes should have different strategies



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# Scenario 3: Scaling Audiences

## Scale

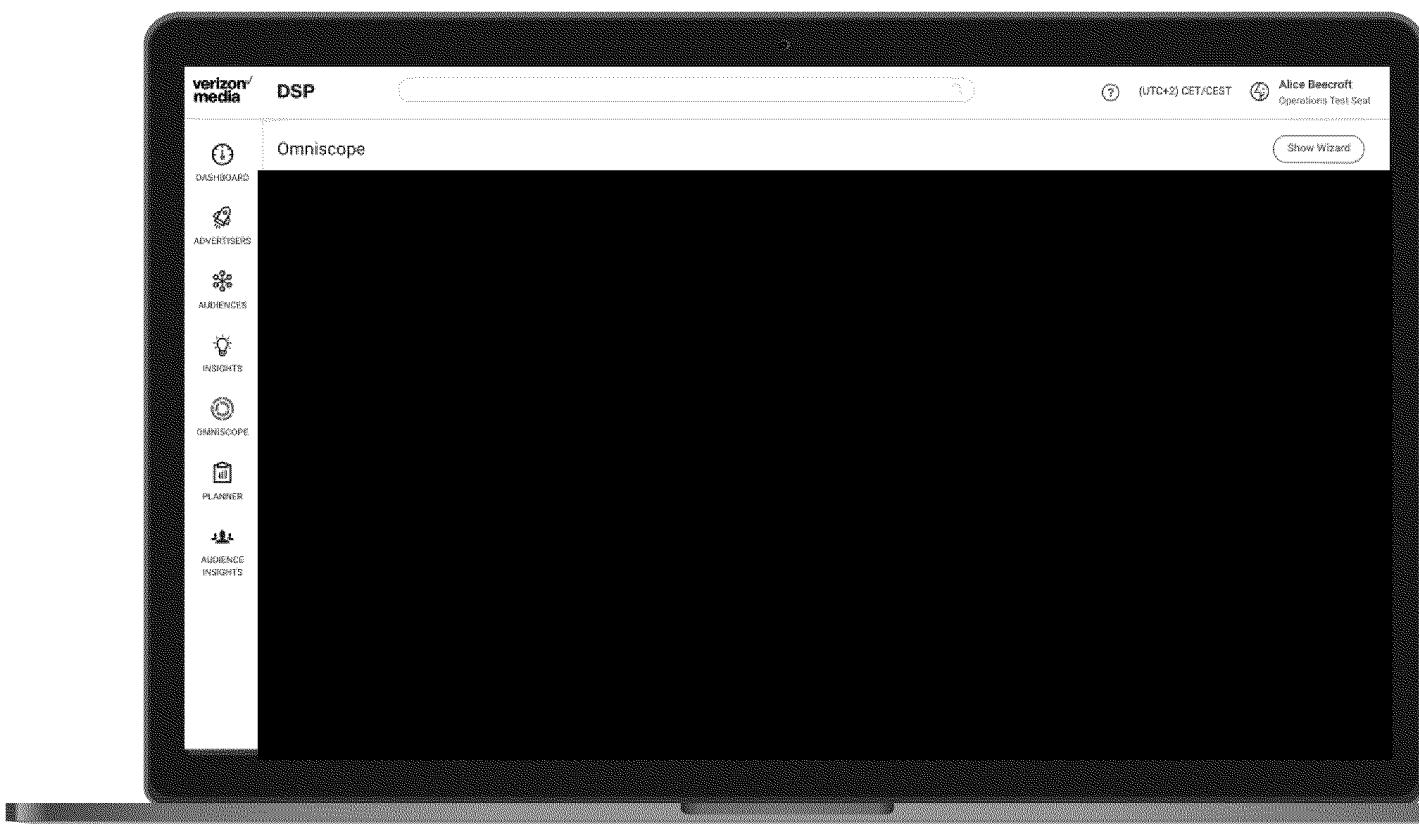
Layer more granular targeting where scalable supply

## Channel reach

Activity can be planned across omnichannel, including Audio and CTV, with clarity on potential budget allocation

## Compare segments

Compare audience segments to view reach and relative cost across supply source, channel & format



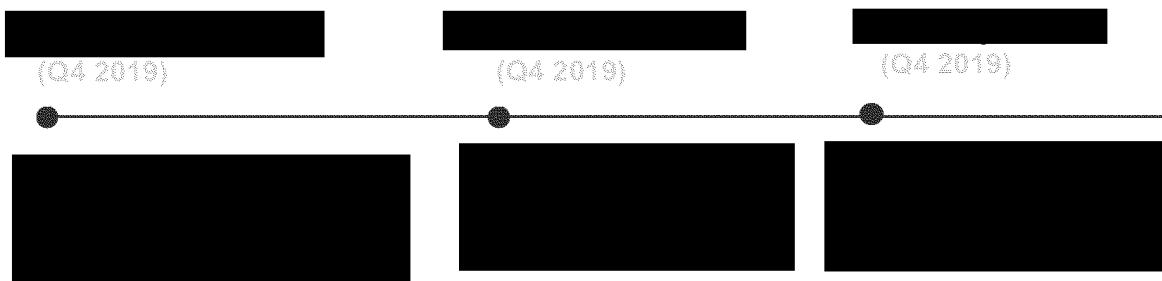
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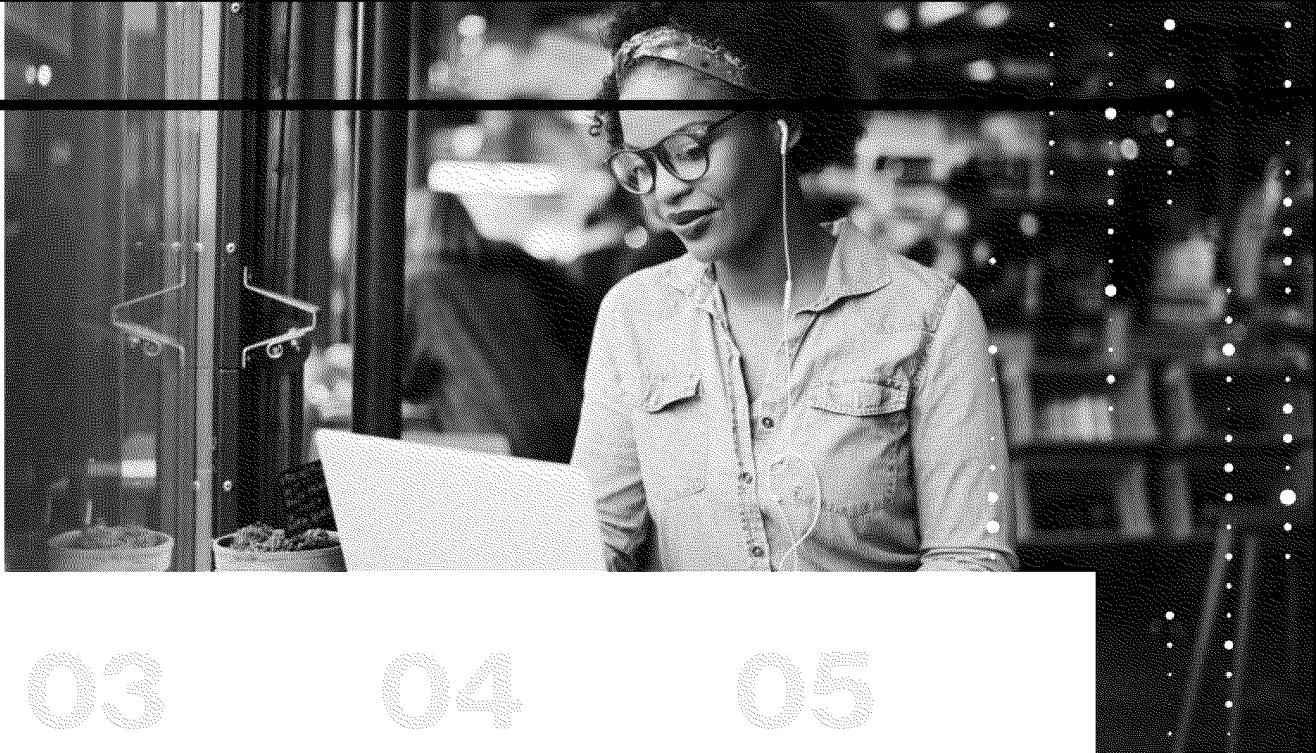
## Omniscope Roadmap



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# SPO Best Practices



01

Select your right paths (i.e. leveraging ads.txt controls)

02

Work toward transparency (i.e. controlling auction types)

03

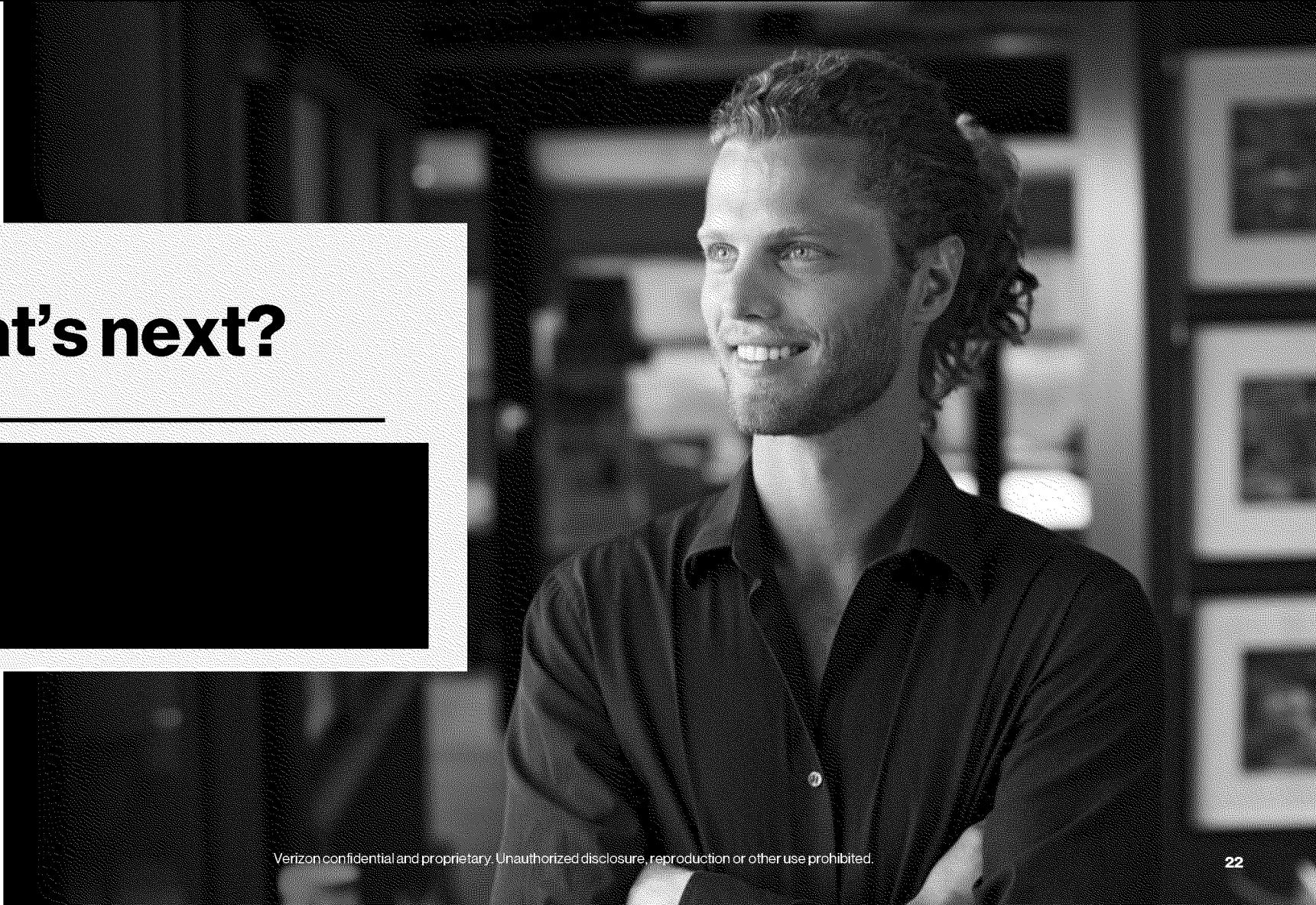
Look for patterns in your current blacklists and whitelists used to maximize performance at the campaign level

04

Use preferred supply controls as needed  
Don't block arbitrarily. The "Seat Level Inventory Controls" allow you to implement business decisions about inventory

05

Let the bidder do its job. It likes to see a large variety of inventory in order to choose the best opportunities for your campaigns



What's next?

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# Q&A

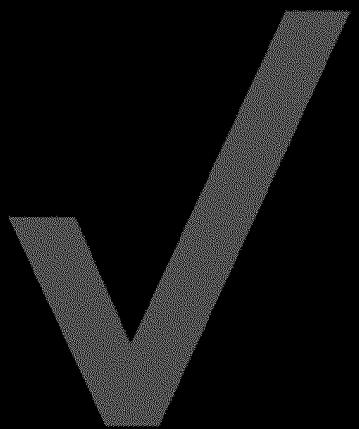


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